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IT is pleasant to observe the confidence which the best architects and contractors of Cincinnati seem to have in each other, and the comprehension which they appear to have gained of the advantages to each, as well as to the public, which will follow from mutual support in efforts for improving the art and business of building. A few days ago the master plumbers called upon the Cincinnati Chapter of the American Institute of Architects for their approval and moral aid in securing the abolition of the system of sub-letting plumbing contracts, a system which has brought death and grief into thousands of households, and should be discountenanced by all who claim any authority in sanitary matters. The architects responded cordially, promising to exert their influence to promote direct dealings between owners and responsible plumbers; and with their help a much-needed reform is likely to be accomplished. Not long afterward the architects met again with the master-builders to consult over the propriety of advocating the appointment of an expert inspector of unsafe buildings, a measure upon which, as recent events have shown, the safety of the innocent public very greatly depends. The discussion showed very clearly, what those who live under strict building laws already know, that every rational and thoroughly enforced provision in restriction of the liberty of unscrupulous contractors and owners to erect insecure, rotten or poisonous imitations of decent structures, to be palmed off on unsuspecting buyers, is a great and direct benefit to honest builders and conscientious architects, whom the competition of reckless pretenders, in the absence of such regulations, deprives of many opportunities for showing their faithfulness and skill.

NOTWITHSTANDING the small number of professional architects in this country, and the uncertain standing which the profession has as yet acquired in many districts, the influence in the community exerted by the general body of architects is surprising. Almost from the first years of their existence, the associations, local and national, of American architects have busied themselves with reforms in the methods of building which they have found in use; and it should be a matter of pride with all of us that, far from opposing the regulation of construction by statute, they have always been foremost in proposing and amending the building laws now in existence in many States. If their numbers and influence were sufficient to secure the rigid enforcement of the laws which they do so much to have enacted, the debt of the American public to them would be increased, but this is as yet a task far beyond their strength. The last city for which, so far as we know, a building law has been proposed is Newport, R. I., a quiet but prosperous town, to which the gradual interposition of new wooden buildings between and among the wooden houses of the last century has given a combustible character which may well excite the apprehension of those whose knowledge of construction is sufficient to teach them caution. The discussion of the matter, as carried on in the local newspapers, has already become interesting, although it is as yet little more than begun, and some admirable suggestions have been made, one of the best of these, for which the credit is to be given to an architect of the city, being that, instead of waiting for a measure to be evolved by infinite compromises from the heterogeneous mass of prejudices, whims, suspicion and self-interest, combined with a little real science and public spirit, which has hitherto usually given birth to building laws, a commission should be appointed, composed of an architect, a master-builder, a lawyer, a business man, and the city engineer, which should be directed to prepare an ordinance for adoption or amendment. Such a commission could work far more intelligently and effectively than a self-appointed "citizens' committee," and, as the author of the suggestion points out, it would be able to adapt the measure which it decided to recommend to the circumstances of the town for which it acted, instead of merely revising and altering the building laws of other cities, as an irregular body is naturally disposed to do. We trust that if the Newport people are wise enough to follow up their idea of regulating their buildings by law, they will adopt this suggestion of Mr. Mason's. If they do, they will in all probability secure an ordinance of peculiar merit. There are scores of important points in construction which no existing statutes touch, and the field for original work in devising new regulations adapted to such cities as Newport is a wide and inviting one.

A STRIKING instance of the diffusion of typhoid fever by means of running water is reported from Plymouth, Pennsylvania. For some time a violent epidemic of the fever has prevailed in that town, attacking so many of the inhabitants that those who retained their health were hardly sufficient in number to nurse and feed the sick, and help has been asked from the large cities in aid of the stricken village. So virulent and extensive an epidemic has excited the curiosity of scientific men, and a commission of physicians recently made an examination of the water-supply of the town. This is obtained principally from a clear mountain stream which flows through it, but in tracing this stream to its source the commission found, near the springs from which it flows, a house in which typhoid fever had prevailed for several months. The discharges from the patients were thrown into a privy forty feet from the brook, but seem to have found their way over the surface, helped by the wash of the spring rains, into the current, by which they were carried down to poison more than a thousand people, eighty-five of whom have already died, while many others will probably die later. We hope that this will serve as a warning against the similar, but greater dangers, which threaten towns and cities supplied with water exposed to pollution, in case of the importation of cholera into the country this summer. Subtle as is the contagium of typhoid fever, that of cholera appears to be still more so, and the infection which has destroyed eighty-five lives in Plymouth, out of a thousand persons attacked, would probably, if it had been composed of cholera-germs instead of those of typhoid fever, have left the village almost without inhabitants.

THE Bureau of Education at Washington has just issued a circular, in the form of a pamphlet, giving an admirable description and comparison of the methods and means of instructing children in city schools, and containing, as an incident, a description of the more remarkable city school-houses of the country, which, though shorter than we could wish, contains many suggestions of value to architects. To say frankly what the author of the report, Mr. John D. Philbrick, has apparently not understood, the way in which designs for school buildings are usually procured, particularly in the smaller cities, is not calculated to secure the highest degree of professional care, to say nothing of skill, and it must be confessed that the average American city school-house sadly belies the science of American architects. To take a single example, which Mr. Philbrick quotes, a costly building in Philadelphia, erected nine or ten years ago, contains four school-rooms on each floor, arranged in the form of a Greek cross. Three of these rooms on each story are lighted only from a large bay-window in the outer end, in which the teacher's platform is placed, so that all the scholars sit facing the only light in the room. The fourth room on each floor has two windows, of moderate size, instead of the bay, the platform being placed in

front of one of them. It is incredible, as we do not hesitate to say, that any architect of respectable reputation could have designed a school-house on such a plan as this, and we trust that those who read Mr. Philbrick's account of it will lay up for future use the moral that the best, and therefore the cheapest professional advice must be sought by methods very different from those which now prevail among the managers of municipal affairs.

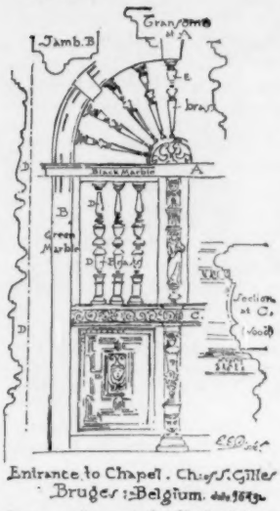
ANOTHER school-house, at Buffalo, seems from the report to be even more ingeniously ill-planned than the Philadelphia example. In this building, which is of recent construction, the class-rooms on each floor are also arranged in the form of a cross, but instead of four rooms, the cross includes five, the fifth being situated at the intersection of the arms of the cross, and receiving nothing but borrowed light through the glazed partitions which separate it from the other four. As most architects of experience in school-house building know, the best structures for the purpose are now generally to be found in the Western cities, but Mr. Philbrick makes an exception in favor of the great English High and Latin School building in Boston, which stands almost alone in this country as an example of a system of planning which is very generally followed abroad, particularly in the modern French schools. In this building, plans and elevations of which were published in No. 172 of this journal, two large interior courts are surrounded by a corridor, from which the class-rooms open. Although by no means an economical arrangement, this secures the best possible light and cross-ventilation for the rooms, and the building is perhaps the most interesting one, in its way, which the country affords.

THE *Art Amateur* gives an interesting account of the sale in New York of the great Seney collection of pictures, which cost about half a million dollars, and were sold for about four hundred and seven thousand. A little excitement was caused, a day or two before the sale, by the positive assertion of a well-known newspaper critic that some of the pictures were forgeries, his opinion being founded on the internal evidence afforded by the pictures themselves. Naturally enough, the managers of the sale, together with the dealers who had sold the specified pictures to Mr. Seney, united in an indignant denial of the imputation cast upon them, and the former immediately instituted a suit for libel against the proprietors of the journal which published the criticism, all of which served admirably to advertise the sale, which was crowded with buyers. It ought to be said that the charge of want of genuineness brought against the pictures, which certainly ought to have had, coming, as it did, just before the sale, a better foundation than internal evidence, was completely refuted, but it served, as such assertions always will among people who depend on others for their opinions, to affect quite seriously the bidding for the particular ones in question. The other pictures, considering the dull times, sold for good prices, several of them for much more than Mr. Seney gave for them, and it is satisfactory to find that as a rule the worst losses were on pictures bought for the name, and presenting inferior specimens of the work of painters in high repute, while the greatest profit was often made on pictures by less-known men, which were bought for their intrinsic beauty, and, like all really beautiful things, gained in value at every change of ownership. The history of one of the pictures, in particular, illustrates very happily the advantage of exercising a well-trained individual taste in selecting such objects. This was one by Renouf, which was bought a few years ago at the Paris *Salon* by Mr. Schaus for sixteen hundred dollars. Although by an artist of no great fashion on this side of the water, Mr. Schaus was so impressed with its merit that he set upon it, when it arrived in New York, the price of twelve thousand dollars, and at this price it was sold to Mr. Seney. The latter, after he had bought it, hearing of the difference between the original cost and what he had paid, went to Mr. Schaus for an explanation of what seemed to him an exorbitant advance, but was met with the cool response that he might have his money back again and return the picture, the price of which would then be raised. Impressed, undoubtedly, with the confidence which Mr. Schaus showed in the value of the picture, as well as by its real merit, which he was probably quite able to appreciate, Mr. Seney concluded to stand by his bargain and keep his picture. When the sale came, the Renouf was put up with the others, and Mr. Schaus himself, who had once bought it for sixteen hundred dollars, now bid seventy-five hundred for it, to sell again, but was outbid by the agent of the Corcoran Gallery in Washington, who secured it for that interesting collection. The best picture in the sale was probably the "Evening in Finistère," by Jules Bréton, which brought eighteen thousand two hundred dollars, the largest price, it is said, ever paid for a picture at an auction sale in this country.

THE New York papers contain a good deal of interesting intelligence in regard to the Panama Canal, which has recently been made the object of two independent examinations by United States Naval officers. The result of these examinations has been given to the public, in the shape of reports to the Navy Department, abstracts of which are published in the New York *Times*. The earliest of these reports was made by Lieutenant Winslow, who was sent from Aspinwall for a week's study of the canal. The time allowed him was far too short for anything like a thorough examination, but he seems to have been very judicious and industrious in collecting information from all possible sources. According to his report, about one-seventh of the excavation for the canal has been completed, in addition to the vast preliminary works, which are even now but just ready for service. Considering the short time which has elapsed since the excavating parties really began work on the various sections, this seems to us an encouraging exhibit, although, as Lieutenant Winslow says, the prospect of the opening of the canal in 1888 appears rather faint. The other report, prepared by Lieutenant McLean, who spent about the same time as Lieutenant Winslow in his inquiries, substantially confirms the statements of the first, but adds some particulars concerning the methods of carrying on the excavation, which is divided into eleven sections, each under the charge of a different contractor. The most difficult portion of the whole is the Culebra section, where the cut to be made is eight hundred and twenty feet wide at the top, but so energetically has the work been carried on that about one-sixth of the material has already been taken out. As it is little more than a year since the trees and underbrush of the primeval forest were cleared away from this part of the line, it seems safe to infer from this evidence that M. de Lesseps and his friends intend to do something more than make a little show of shovelling to cover their appropriation of the Canal Company's funds, as some people were once uncharitable enough to accuse them of wishing to do. We are rather surprised to find no mention in either of the reports of the locks which were at one time said to have been planned in the canal; and the original project of a sea-level canal, if it was ever dropped, seems to have been revived. In regard to the works for the accommodation and health of the canal employés, Lieutenant McLean speaks in the highest terms. No reproach has been more frequently cast upon the canal engineers than that of extravagance and dilatoriness in building docks, artificial harbors, hospitals and barracks, before beginning the work of piercing the Isthmus; but the advantage of possessing them is fast becoming manifest as the number of men employed increases, and it is likely that in this, as well as in other matters, the history of the completed work will show the economy which generally follows from carrying out a well-considered plan.

THE singular contract between the State of Texas and a syndicate of Chicago capitalists, under which the latter were to build the State Capitol, receiving their pay in public lands, is said to be on the point of termination, through the unwillingness of the syndicate to proceed further with the work. The explanation of the trouble, if there is really any trouble, is probably to be sought in the general business depression, which has checked the sale to settlers of the land acquired by the syndicate. The terms upon which the grant was made were regarded at the time as very favorable, and if immigration into Texas had continued at the rate which was expected, the members of the syndicate would probably have already grown rich by their bargain; but there is no heavier load for such an association to carry than a tract of vacant land which no one wants to buy, and it is quite conceivable that the abandonment of the contract, even with the forfeiture of the quarter of a million dollars specified in it as the penalty for non-fulfilment, may seem more prudent than persistence in the work under present circumstances.

REPORT OF A COMMITTEE OF THE AMERICAN INSTITUTE OF ARCHITECTS ON ARCHITECTURAL JOURNALS.



THE Committee to whom was referred the Memorial of the Rhode Island Chapter, in regard to the general usefulness and acceptance to the profession of certain contemporary architectural journals published in the United States, respectfully report: —

That they congratulate the Institute and the profession on the number of excellent serials that are now issued in this country in the interest of architecture and its kindred arts. Considering the limited patronage which necessarily can be obtained for such class-publications, it is not a little remarkable that so many of them are able to sustain themselves under the circumstances; and this no doubt they would fail to do, were it not that their circulation among a class who naturally influence contracts for building materials make them a valuable advertising medium, and thus supplement the limited income derived from subscriptions.

Among these publications they would instance a few which seem to be particularly worthy of mention. In New York is published *Building*, an enterprising monthly, whose special edition usually contains a large number of full-page reproductions of the latest illustrations of the English and other foreign architectural journals, and whose regular edition is well supplied with original articles of more or less marked value, and with not a few illustrations of new buildings of considerable merit. Also, at New York is published *Carpentry and Building*, a monthly, edited with considerable care, full of practical information in regard to the details of building, and not wanting in carefully prepared wood-cut illustrations.

The *Builder and Wood-Worker* is the title of a journal published in New York, monthly, at a very reasonable price. It is filled with illustrations and articles of much value to its readers.

Among New York journals of great interest to architects, and whose labors are devoted to some specialty intimately connected with building, are several of high character and acknowledged usefulness. The *Decorator and Furnisher*, the *Sanitary Engineer*, the *Plumbers' Trade Journal*, the *Hydraulic and Sanitary Plumber*, etc., may be instanced as good journals of their class; and the *Scientific American Supplement*, *Van Nostrand's Magazine*, *Science*, *Engineering News* and others frequently have articles of great interest to the profession.

The *Decorator and Furnisher*, monthly, is elaborately illustrated with drawings exceedingly well executed, and is devoted to the elucidation of the decorative department of architecture. The *Sanitary Engineer* makes a specialty of plumbing and ventilation, and is very ably conducted. The *Plumbers' Trade Journal* and the *Hydraulic and Sanitary Plumber* are conducted more in the interest of the plumbing trade than of sanitary science, but frequently contain articles of much value to all persons interested in that department of building.

The other New York Journals above-named will well repay a careful examination, furnishing, as they do from time to time, essays upon fundamental principles of design that necessarily apply to the arrangement of the several parts of buildings, and to the stability of their construction. The same remark will apply also to the *Journal of the Franklin Institute*, published at Philadelphia, Pa.

At Cincinnati there is a monthly periodical, called the *Cincinnati Building Review*, which is more particularly devoted to the interests of builders, and partakes largely of the nature of a builders' trade journal. It publishes, however, very well-executed cuts of local buildings, and gives an extensive notice of the several building enterprises of the West.

At Chicago is issued the *Inland Architect and Builder*, a publication of very high character, well illustrated, ably edited, and the organ of the Western Association of Architects. Its full-page illustrations are published upon separate sheets, and are generally artistically drawn and printed; they consist of perspectives and plans of local buildings, of which there are many very fine examples, and of various proposed and completed structures in the very extended area of the great West. The noted prominence of Chicago as a commercial centre has made it one of the wealthiest cities of the western States, and naturally the result has been an unexampled activity in building enterprises of all kinds, but more especially in those relating to business requirements. Immense office-buildings, exchanges, club-houses, railroad stations, grain storage buildings, etc., have been erected and are now in process of erection, and afford valuable opportunities for the exercise of the local architectural skill. By these the resident architects have not failed to profit, and altogether a very prosperous condition of affairs has resulted for most of the local offices. This enlarged activity has created a demand for a home medium for the discussion of contemporary designs, and the advertisement of the most improved devices in house-building appliances and in the various materials of construction. This demand has been fully met by the journal above referred to, which now lacks little of satisfactory acceptance, except perhaps in regard to the frequency of its appearance, it being a monthly and not a weekly.

There are several other journals published in Chicago in the interest of house-building. The *Sanitary News*, semi-monthly, is well conducted, and is devoted to all matters having relation to the plumbing and ventilation of buildings. The *Building Budget* is a new serial, partaking of the character of a trades-journal somewhat, but issuing full-page illustrations on separate sheets, and giving descriptions of noted buildings, with architectural criticisms thereon. In its "Precursory Number" for February last, it gives an excellent reproduction of a photograph of the Spanish Steps at Rome, and several wood-engravings. This journal is issued from the office of the Permanent Exhibit of Building Materials, etc., in Chicago, an institution of evident usefulness to all parties concerned, and one that will bear repetition in all the large cities of the Union.

In San Francisco, Cal., the *California Architect and Building News* is a monthly publication, conducted with great energy and ability, and now issuing its fifth volume. Its illustrations of California buildings are liberally given, and it adds a series of portraits of the leading architects of the Pacific coast. It reports the proceedings of the San Francisco Chapter of the American Institute of Architects quite fully, and gives biographies of its prominent members.

At Holyoke, Mass., is published *The Builder*. This is a monthly, conducted with much taste and discrimination, and illustrated with very acceptable wood-cut engravings of new residences, etc. Its editor is the author of those two successful books on country houses, not long since published: "*Homes, and How to make Them*," and "*Illustrated Homes*," and several others.

At Boston, Mass., is issued the *American Architect and Building News*, a weekly of the first class, and, it must be acknowledged, the only journal in this country that can compare favorably with the great London architectural publications. It is very liberally illustrated with full-page lithographic impressions of the latest designs of our most noted architects, and with occasional views of celebrated European buildings. Once a month a fine gelatine print is issued in a special edition. Its editorial department is conducted in a scholarly, courteous, and, at the same time, independent tone, and its selections made with excellent judgment. It is the accepted exemplar of American architectural practice, and is found in the office of almost every architect in the Union.

It is to be expected that a journal addressing itself to the attention of so large a list of patrons would meet with more or less criticism as to its methods, and be subject to the petitions of various classes of its readers for the greater predominance of subject-matter illustrating those departments of architecture in which they take the most interest. It is said that in its pages the technical part of the ordinary practice of an architect is too much neglected; that a larger space given to details of construction, and a more extended discussion of these very important elements of practice would be desirable. It has issued large sheets of details in former numbers, which were very acceptable to its patrons, but lately this practice has been more or less abandoned. But in connection with this complaint it should be borne in mind that all its original designs are the work of contributing architects, and the selections are made from drawings thus sent in by them. Should no sheets of details be offered, none will appear; should an abundance of such drawings be contributed, a proper proportion of them would make a part of each number's illustrations. So if there now exist any grounds for these animadversions, the patrons of the journal have the remedy in their own hands.

It is added, however, that a great many drawings of an interesting description, illustrating important buildings in a practical way, and offered by prominent architects, are constantly being rejected by the publishers, in the interest of the desired esthetical position of the journal, in contradistinction to its more practical character. This course can only be excused under the understood assumption that its practical patrons are to look to other journals of acknowledged technical tendencies for the kind of information they prefer. In this view of its position its course appears more clear and consistent, and those of its readers who can also patronize the more technical journals will thus find a way out of their difficulties. Be this as it may, one thing is certain, that the class of illustrations which are now being published includes drawings which are very highly prized by architects generally, and are certainly of a high character.

In journals of the class under consideration much influence is exerted by the opinions they advance and the statements they make, and it is very important that all representations should be precisely in accordance with the true nature of the facts. Complaint has been heard that in some respects a not sufficiently clear discrimination has been made in the credit given to architects of noted buildings, as to the relative share of merit due to them in their construction; and also that an exercise of more comprehensive views in discussing many questions of vital interest to the profession would be very desirable. The number of instances, however, where a seeming fault of this kind has been pointed out is not large, and even in these cases there is room to believe that they may have been caused by an excessive zeal for the triumph of good ends.

In concluding this report upon the architectural serials of the

country it may not be amiss to remark that every architect should feel is to be his duty to contribute promptly and steadily, by literary work, drawings and subscriptions, to their continued maintenance.

O. P. Hatfield,
Henry M. Congdon, } *Committee.*

New York, April 15, 1885.

The above Report of the Special Committee on Architectural Journals, appointed at the meeting held March 18th, ult., on the Memorial of the Rhode Island Chapter was accepted, and the said Committee given power to amend and print. Geo. C. Mason, Jr., *Secretary A. I. A.*

It will be seen, when the above-mentioned Memorial is read, that the Committee of the Board of Trustees had thrust upon them a task of no little delicacy, and that they have extricated themselves from the situation with a tact which we believe will exact the admiration of our readers as it has ours. Of the preamble which introduces the subject-matter of the report we will only say that had we been the writers we could have found ground for saying even more complimentary things of each of the publications mentioned, particularly of those published in Chicago, which in many ways deserve even more praise than is given above.

The Memorial of the Rhode Island Chapter A. I. A. is as follows: —

Providence, R. I., March 14, 1885.

Messrs. J. R. Osgood & Co.: —

Gentlemen, — At a meeting of this Chapter held last evening it was voted that the Secretary be instructed to write you, to see if a higher tone and wider scope cannot be infused into the editorial conduct of the *American Architect*, and also to forward a copy of this letter to the Board of Trustees of the American Institute of Architects. All our members are subscribers to this publication, and feel that it can easily be made a greater power for good to the entire profession, and that the issue of no other American architectural journal is required, if the interests of the profession are properly considered by your editors.

We feel sure that you do not desire it to degenerate into a simple advertising medium of such products as are required in building, or to become a reprint of foreign publications, but that it shall be a living exponent of the best work and thought of the profession in this country.

We feel sure that you will consider that your best interests lie in the direction of the greatest satisfaction to your subscribers, and therefore express our convictions in this frank manner.

With earnest hope for your continued success in this publication, I remain, Gentlemen, Yours truly, Edward I. Nickerson,
Secretary R. I. C. A. I. A.

The only special reason we have for taking exception to this document is the fact that it was addressed to the publishers without any previous warning, remonstrance or complaint on any score having been communicated to the editors, and so the matter has a wholly unnecessary air of tale-bearing. As to recommendations and remonstrances, we are glad to receive them, whether from single individuals or societies, and we accord to these as much attention and consideration as we should to the opinions of any other body of ten members of the profession.

There are points both in the Memorial and in the Report which seem to require, disagreeable as all personal explanations are, comment at our hands, and if the result is a more hearty coöperation in our efforts on the part of the profession no one will regret the action of the Rhode Island Chapter, certainly not ourselves.

If to its characterization of the editorial conduct of this journal the Committee had added the adjectives "impersonal" and "impartial" we could have conceived no character we would so gladly have accepted. Consistency is so difficult of realization and so almost impossible of definition that we would not think of laying claim to its derived adjective. But the impersonality of our efforts we do value: we have no desire to be known as the editors of the *American Architect* — and we are actually known as such by very few — and so far as real usefulness is concerned it makes no difference to our readers whether we are Brown, Jones or Robinson. It is the impersonal journal that speaks and acts, and if we can succeed in impressing that feeling on its readers the journal's words and deeds will be more potent than if associated with the remembrance of our personalities. Impartial in our words and deeds, so far as it is humanly possible, we do insist that we are.

Independence, impersonality, impartiality: when this journal is recognized as having these three virtues we shall be satisfied with its character; these can be secured and maintained by force of will, and with these for a background we feel that much may be excused to the lack of literary skill, professional ability or common sense which at different times may overtake editors as other fallible beings.

As to the somewhat indefinite charges — we will call them such — which have been brought against us, — partly we suppose because the American Institute of Architects years ago adopted the *American Architect* as its "organ of publication" and we are, therefore, supposed to be subject to its discipline — we will reply with the feeling that with nearly ten years of personal experience behind us we know as well as most what it is *desirable* to, do while we have a far better knowledge of what it is *possible* to accomplish.

We believe the complaints have been lodged in forgetfulness that we have not at command the sinews of a great daily, the abounding treasury, the full staff of editors and specialists, the large corps of paid reporters and correspondents all over the world. No; our resources are limited and are largely dependent on the good will and coöperation of the profession, and we conceive that what we do accomplish is therefore rather a matter for gratulation than for censure.

From the more specific remarks of the Committee we infer that it has received personal information as to the exact grounds of complaint which do not appear in the Memorial, and we will take them up in order.

[A.] "It is said that in its pages the technical part of the ordinary practice of an architect is too much neglected."

In any given issue, yes; perhaps even in the four or five numbers which go to make up the issue for a month, which, of course, should be considered together when making a comparison with the other journals mentioned, which are all monthlies. But in the complete yearly volume we believe that the technics of architecture will be found to occupy its proper relative space. What are the matters in which an architect is interested? Architecture, construction, archæology and the history of art, art itself, decoration, mechanics, law, chemistry, sanitation, civil engineering, biography, æsthetics, the lighter gossip of liberally educated men, and matters of daily interest and occurrence. This is a large field, and a well-balanced journal cannot afford to neglect any of these divisions for the sake of cultivating any one of them to the degree pleasing to a fraction of its readers. A glance through the index, however, will probably show the existence of an unsuspected mass of material appertaining to each of these branches which does not make a vivid impression as it appears week by week.

[B.] "It has issued large sheets of details in former numbers which were very acceptable to its patrons, but lately this practice has been more or less abandoned."

We continued to issue these detail-sheets in the face of a very pronounced opposition, and gave them up only when we felt it unwise to insist longer that they were valuable when so many people told us they were a nuisance.

[C.] "So if there now exist any grounds for these animadversions, the patrons of the journal have the remedy in their own hands."

To a very large degree. A vigorous coöperation would unquestionably be a great benefit to editors and subscribers.

[D.] "It is added, however, that a great many drawings of an interesting description, illustrating important buildings in a practical way and offered by prominent architects, are constantly being rejected by the publishers. [read 'editors']."

We might claim this statement as a striking proof of our impartiality of action, for one does not "constantly" reject the work of "prominent architects" if by any possibility the glamour of the prominent architect's name can be made to impart lustre to an issue of such a journal. On this point let us see what the statistics say. We find that in the last two years three hundred and forty-seven drawings only have been submitted to us for publication, and we have felt constrained to decline but ninety-four, or about twenty-seven per cent: this is a much smaller ratio of "rejected addresses" than exists in the management of the London architectural journals, as their editors have informed us in times past. Of the ninety-four rejected drawings, thirty-eight were "first offerings," forty-nine were contributed by architects who had previously had designs accepted and published, the small balance were offered by men who though having offered drawings at different times had never had one accepted. As to the classes of buildings represented by the ninety-four drawings we find that fifty depicted dwelling-houses, seven churches, five shops, three apartment-houses, three town-halls, two court-houses, two hospitals, and the rest were scattering. We will let these facts tell their own story in connection with those designs which have been published, which in themselves are evidence that we considered them better worth publishing than those which were declined. We will only add that as we look over the list we fail to recognize the "great many drawings of an interesting description, illustrating important buildings in a practical way and offered by prominent architects," which the Report mentions.

[E.] "It is very important that all representations should be precisely in accordance with the true nature of the facts."

This seems to imply that the representations we advance are not in accordance with facts, or in other words, that we are or have been guilty of wilful perversion of the truth. When specific instances of our moral obliquity are advanced we will see if anything can be said in palliation.

[F.] "Complaint has been heard that in some respects a not sufficiently clear discrimination has been made in the credit given to architects of noted buildings as to the relative share of merit due to them in their construction."

Apparently we are here accused of saying that some certain architect designed a building which was actually the work of another. No grievous injustice, surely, in such a mistake as this, which could only have been made in a state of ignorance in which we still are, unless we denied the injured architect the right to correct the error in our columns.

[G.] "And also that an exercise of more comprehensive views in discussing many questions of vital interest to the profession would be very desirable."

Unquestionably, but, alas, just at this point the limitations of the editorial capacity must be taken into account. Fortunately, perhaps, while we may hope the *American Architect* is immortal, the editors may be expected to pass away and make room for these "more comprehensive views" which we realize are always desirable.

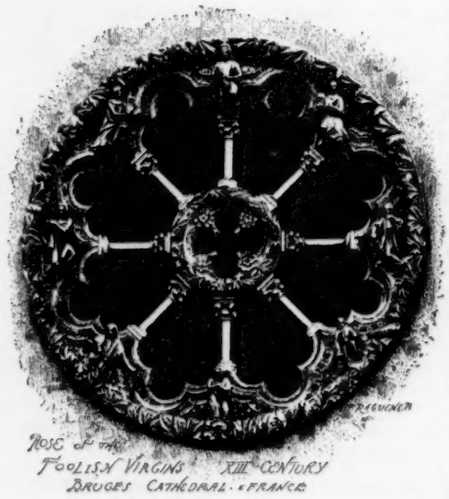
On comparing the demands of the Memorial with the replies of the Committee we seem to discover that the "wider scope" demanded is understood to mean that we are to *restrict* our efforts to expounding

"the technical part of the ordinary practice of an architect," while the "higher tone" is to be achieved by undiscriminatingly accepting the offerings of "prominent architects."

When all is said, we are unqualifiedly grateful to the Committee for its appreciative criticisms, and we are not less so, bar the matter of address already mentioned, to the Rhode Island Chapter, whose Memorial we accept as honest, well-intentioned and in no way instigated by personal pique or malice, as such complaints sometimes are, since we believe we have given no cause for such feelings, either through rejecting manuscripts or drawings, for the simple reason that of late years, save in the case of the Secretary of the Institute, Mr. Mason, none have been offered.

But, we will ask the Rhode Island Chapter, have you ten men done what in you lay to give the journal a "higher tone" and a "wider scope?" Have you ten men performed what the Committee points out to be your duty — by contributing "promptly and steadily by literary work, drawings and subscriptions" to the maintenance of the journal? and we put the same question to every other body of ten men who feel that the editorial management of the *American Architect* is unsatisfactory, and consequently a fit subject for complaint and discipline.

THE FIRST MONOGRAPH OF AMERICAN ARCHITECTURE.[1]



THE first of Messrs. Osgood & Company's promised series of monographs of American architecture is that of the new building of the Law-School at Cambridge, called Austin Hall, from its donor, Mr. Edward Austin. (The official title of the school, by the way, is not the Harvard Law-School, we believe, as appears in the title-page before us, but the Dane Law-School.)

The publication consists of eighteen large heliotype plates, in a neat portfolio, which include views of the building from all four sides, plans of both stories, two or three interior views, enlarged views of the most striking parts of the exterior — the porch, the staircase turret, the outer vestibule, — and several sheets of details at a large scale. All these, except of course the plans, are heliotyped directly from the building, and printed from gelatine, so that they have the qualities and advantages of photographs from nature. The execution of the work is all that could be asked. The points of view are well selected, and the selections give all the characteristic parts of the building. The scale is sufficient to show everything satisfactorily; the plates are well-lighted, singularly free from distortion by the camera, printed with admirable clearness and the right weight of tone. It would be hard to offer a more encouraging example of the kind of work to be expected in this series. For architectural ensemble on a considerable scale one cannot ask anything better done than the general view of the porch, No. II; for presentation of detail, the capitals and other sculpture in Plates IV–VIII are exemplary. The only improvement which it occurs to us to suggest is that the ink with which the plates are printed might be tinged with a warmer pigment, not enough to give color, but only to dissemble the pallor of tone which is in the heliotype its point of inferiority to the photograph.

The subject selected for this first number is interesting in itself, and should be, especially to the young architect, valuable as an example of qualities in design which are conspicuously absent from the average of American architecture — we may say from most of it — mass, simplicity, proportion and concentration. The architect may have his own feeling about the style, characteristic of Mr. Richardson, in which the building is conceived; we like it, others may prefer a different style. But the qualities of design are independent of style, or may be, even though some styles court particular qualities more than others. Here, we think, the architect will admire the simple unity which is maintained throughout the composition, the care with which all the wall-space which can be saved in the fenestration is made to tell by continuity, and the many windows are thrown together into masses made effective by contrast. Simplicity, economy, and an effect at once of dignity and richness are reconciled by condensing the ornament into a few places, and there employing it without stint, in contrast with a marked plainness elsewhere. The proportions of the great triple-arched porch are admirable; the subdivision and enrichment of the heavy archivolts is excellently managed; their broad band contrasts most effectively with the mosaic of the wall in which they are set.

To some eyes the dominance of horizontal lines and low dimensions may seem excessive. The fastidious designer may object to the proportion of the horizontal divisions of the wings. He will wonder what the lonely pilaster is doing on the flank of the left-hand arch of the porch, where its only office seems to be to stop the mosaic in the spandrels of the arches — cut in two by the thin line of light stone which prolongs the sill course of the wing, but perhaps costing more in breaking up the wall-space of the central mass than it saves by connecting it with the wing. He will think that the upper and lower divisions of the windows over this wall-space "swear" at each other a little. He may wish for the pleasant contrast and repose of a fair smooth frieze instead of the rough split stone, especially over the carved panels on the ends of the building and the foliaged capitals of the wings. He may wish the capitals of the main porch a little less lumpy, and their carving more accentuated by points of shadow. But these are details, and he will turn back again with interest and satisfaction to the general aspect of the design, to his pleasure in its union of vigor and refinement, its breadth, simplicity, and dignified reserve.

A quarter of a century ago it would have been idle to attempt a series of American monographs such as these. Now we are getting a considerable store of buildings which are worthy not only of reproduction in sketches but of detailed illustration. It is not altogether easy to choose between those which are interesting in general aspect and those that will repay deliberate study, or to draw the line between the lavishness of illustration that makes the buyer needless expense and the chariness that stints; but if the selection keeps pace with the execution as this example fixes its standard the series will be admirable. The work of most architects, especially of those whose manner is not yet fixed, is influenced far more, and their interest more engaged, by the things that are done about them than by those that are recovered for them from the past.

[1] *Monographs of American Architecture.* 1. Austin Hall, Harvard Law School, Cambridge, Mass. H. H. Richardson, Architect. Boston: James R. Osgood & Company, 1885.

ART IN HIGH MONUMENTS.

IF art as expressed by public buildings and monuments were only a matter of fancy, contributing nothing of any permanent value to individuals or peoples, instead of its being so much an inborn longing of our nature as to be a necessary condition of civilization, it might well be disregarded according to the whim of the moment or the occasion of its use. As, however, it is a part of ourselves and will not be set aside, its study as applicable to the construction of our public buildings and monuments, and also to private dwellings as well, is a subject of the deepest interest to all. Yet it is not too much to say that the greater part of the architectural and monumental structures of the country are erected with but little reference, so far as external appearance is concerned, to anything more than the piling up of a desired amount of masonry, or the setting up of a given number of effigies called statues. The monumental structures of the old world which have charmed mankind for centuries, some of them costly, others quite inexpensive, but over whose construction art was equally dominant, have not their counterparts here. Is this because we are not an art-loving people? Not necessarily. We *are* art loving, but in our slip-shod way we allow the enemies of art, or its honest but ill-advised aiders and abettors to control in the management of the erection of public buildings and memorials. Nor can this state of things be easily changed. Monuments will continue to be erected, and buildings built, by so-called art committees, with no element of art in their construction. It is, nevertheless, the privilege of the writer on art and also his duty to call attention to this lamentable condition of public art and to point out, as best he may, the path towards wholesome reform.

One of the mistakes we make in discussing the subject is to imagine that the tendency for large pieces of stone, high buildings, and rapid execution are indications of a true and healthy development of art feeling. To an occasional recommendation in favor of a stricter allegiance to certain principles of art that are common to all the great structures of the world, the reply has been, "We do not care for art as you artists understand it, and we do not care what artists think about it, but we do care for something big, bigger than anything else that has been put up, and different. We want to please the people." Such men little think that only true art will in the end "please the people." The false will in the long run be discovered and condemned by the "plain people." He makes a self-accusing excuse who apologizes for giving "the people" less than the best in everything pertaining to art, on the ground that they are vulgar, and that their tastes must be pandered to, because they cannot appreciate the best. If there be loyalty to fine things and an ambition for their production and possession, it is to be found with "the people." It is very evident that we must depend upon them, and not upon money-getting schemers, or persons ambitious of gaining political or social

distinctions through their advocacy of art if we are ever to have public edifices and monuments that shall be works of art.

In support of this love of true art by the people, a recent report of a committee on design for a national monument truly says, "The peasant equally with the scholar stands impressed and silent before the Sistine Madonna, the Venus of Milo, and the Lion of Lucerne." With equal truth might the committee have added, the Tower of St. Mark's at Venice, the Triumphal Arch at Paris, and the Pyramids of Egypt. True art appeals alike to the educated and to the unlettered. It touches the heart of the king, if he has one, and of his meanest subject. It reaches them, too, through a lovely picture, a grand pile of masonry, or the verses of a poem. Only the art must be there and it must be real.

Incidentally, it may be remarked that the Lion of Lucerne owes its reputation largely to its gigantic size, the tragic incident it aptly commemorates, and the enthusiastic praise of admirers hardly well informed in art. As a work of art it does not compare with the Madonna or the Venus cited by the committee, nor even with the Lion of the Bastile Column, by Barye. The Lion of Lucerne belongs to the class of monumental productions which symbolize events, acts or emotions. They are not, generally speaking, wholly destitute of art, but from various causes; sometimes through their lack of the highest conception of the subject, sometimes through inadequate execution, sometimes through their want of adaptation to their localities, and sometimes for other reasons they always fail to reach the realm of high art.

But size alone is not art. The works of art of large size just alluded to, impress the mind, not simply because they are large, but because they possess certain art elements as well, — of these are simplicity and severity, and when massive structures contain these elements they take a hold on the mind that no amount of tawdry ornamentation can produce. On the contrary, such ornamentation produces the opposite effect. There is an impressiveness in the concentration of the mind and eye upon a simple form that goes up into the air far exceeding that produced by almost any other object made by the hand of man. The reason is, it is more readily grasped, its appeal is more personal, its effect more direct. This simplicity, however, should not degenerate into mere mechanical skill. Art begins to depart then, though it may leave behind something of majesty and grandeur still. A notable illustration of this fact is furnished by the Washington Monument. Could this have attained the art which the Egyptian put into the obelisk, its glory would have been greatly heightened. Had it been treated as a piece of architecture in those respects which distinguish the obelisk from mechanical workmanship, and the towers of Italy from piles of masonry, its artistic character would then have asserted itself, and its power would have been correspondingly greater.

Some of the reasons why it is believed that Egyptian obelisks and the famous towers of Italy and other countries are works of art and not forms of masonry however skilfully executed are that the artists who designed them considered two facts, matter and light; while the modern builder considers one only — matter. The first built with an understanding of the effect of light upon a form erected in the air, the second simply with reference to a mass of masonry as proportioned by a drawing on paper. The effect of the light upon such forms as towers, columns and obelisks in changing the appearance of their sides, surfaces and defined lines, and of their height, when made without reference to certain principles of art is well known to artists, as it is also known that certain forms will appear better in the air than others. The entasis, which, when correctly executed makes a column instead of a cylinder, finds its counterpart in the treatment necessary to make a fine tower, obelisk or building. This treatment is seen in all fine large statues; it belongs to the highest range of art, and constitutes art in high monuments.

THE ILLUSTRATIONS.

[*Contributors are requested to send with their drawings full and adequate descriptions of the buildings, including a statement of cost.*]

COMPETITIVE DESIGN FOR A STABLE, SUBMITTED BY "*Cabby.*"

To be built on piers of hard brick 12″ square. Chimney and manure-pit also of hard brick. Sills, 4″ x 12″; posts, plates, etc., 4″ x 6″. First-floor beams (framed into sills), 2″ x 12″, 16″ on centres. Second-floor beams, 3″ x 8″, 16″ on centres. Lower part of first floor, 10″ weather boards. Upper part of first floor, 5″ novelty siding. All the other outside work to be shingles laid on spruce lath. Floors on first story, 2″ spruce; floors on second story, $\frac{7}{8}$″ spruce. Ceil all the first floor and coachman's room on second floor with $\frac{5}{8}$″ beaded ceiling boards. Stalls and mangers of 2″ plank planed both sides. Mangers to have iron angle-rail on edge and cast-iron feed-box. Stalls to have cast-iron gutter in floor. Provide vent with shutter to be operated with cords from first floor. Water-tank to be of 2″ plank bound with iron hoops 3″ wide. Cast-iron sink in stable-room and wooden water-trough under shed to be provided with water from tank through lead pipe with brass bibbs. Line gutters with tin and provide leaders to, and overflow from, water-tank. Lay tile drain from sinks and overflow to cesspool of present house. Lay tile drain from stall gutters to manure-pit. Provide harness-room with all necessary hooks, etc. All wood-work usually painted to have two coats of paint.

Carpenter work,	$1,340.00
Mason work,	80.00
Architect's commission,	70.00
Total,	$1,490.00

Proposed by A. H. Vreeland, Carpenter and Builder, 107 to 113 Garside Street, Newark, N. J.

THE ALLYN MEMORIAL, SPRING GROVE CEMETERY, HARTFORD, CONN. MR. A. FEHMER, ARCHITECT, HARTFORD, CONN.

This memorial was built for the late Mr. T. M. Allyn, of Hartford, Conn., by the New England Granite Works. The models for the four statues on the corner buttresses and for the architectural carving were made by Mr. Carl Conrads. The statue of Christ on entrance porch was executed after Thorwaldsen's model. The building is of Westerly granite, part rock-faced and part tooled; the statuary is of Carrara marble. Internally the walls are lined with pressed-brick, with mouldings of terra-cotta. The ceilings are groined; the floor is of encaustic tiling, and the windows are of stained-glass. The crypts are placed under the floor in the rear apse.

CHRIST CHURCH, DANVILLE, PA. MR. H. M. CONGDON, ARCHITECT, NEW YORK, N. Y.

This church was built as a memorial of the late Peter Paldy, of Danville, Pa., from a bequest of $50,000, left by him for this purpose. It takes the place of an old building on the same site, and is built of local stone. Everything is of masonry inside and outside; the window-traceries of stone. Open-timber roof. No paint or plaster. The walls are lined with colored brick. The pews and chancel furniture of oak. The seating capacity is about 500.

ODD FELLOWS' HALL, CAMBRIDGEPORT, MASS. MESSRS. HARTWELL & RICHARDSON, ARCHITECTS, BOSTON.

The Cambridge Odd Fellows' Hall is just completed, at a cost of about $34,000. It contains, above the stores, a hall to let for entertainments, two for use of Odd Fellows, with a small club-room, anterooms, banqueting-room, etc. The front is of pressed-bricks and terra-cotta.

LIVERY STABLE FOR THE DEVON INN, ON THE LINE OF THE PENNA. R. R., FOR SAMUEL COFFIN, ESQ. MR. W. BLEDDYN POWELL, ARCHITECT, PHILADELPHIA, PA.

CATHEDRAL OF ALL SAINTS, ALBANY, N. Y. MR. R. W. GIBSON, ARCHITECT, ALBANY, N. Y.

This drawing shows the west front as it is now intended to build it.

PLASTER IN SCULPTURE. — II.

No adequate estimate of what the Berlin collection of casts has done for the public can be derived from such dry facts as that the objects represented now mount high above two thousand, for vacant numbers alone give no idea of the riches of form and opportunities for noble enjoyment and deep study here ever present. Now the once roomy halls and capacious compartments have become so full that the sense of a crowd unduly packed too often detracts much from the full enjoyment to be derived from this magnificent collection. But this temporary evil is soon to be remedied, it being decided to give up a large and valuable island in the heart of Berlin to her art treasures. Thus, with the paintings and original sculptures now owned by the city, this unrivalled collection of casts will also be better able to irradiate its fulness of enjoyment. Statistics are not at hand to tell of the thousands who yearly seek pleasure and profit among these reproductions of antiquity, but a glance at the happy faces and devout mein of high and low who crowd these halls assures us that the influences emanating thence are not trivial or ephemeral. Every day in the year (excepting the inevitable house-cleaning Mondays) these hospitable courts are open free of cost to all, and on week-days it is common to hear, not the hum of voices, but the rush of many feet, and to see large schools of boys moving about, now pausing before the image of some great historical hero, now before some other work of art, and all listening with delighted attention to the explanatory words of teacher or friend.

Older students, too, are always to be seen, all absorbed in study, with note-book in hand, or flocking about some professor of world-wide fame, to learn here, practically, the methods and workings of the modern science of archæology. Here ladies, with attendant footmen,

[1] Continued from page 224, No. 489.

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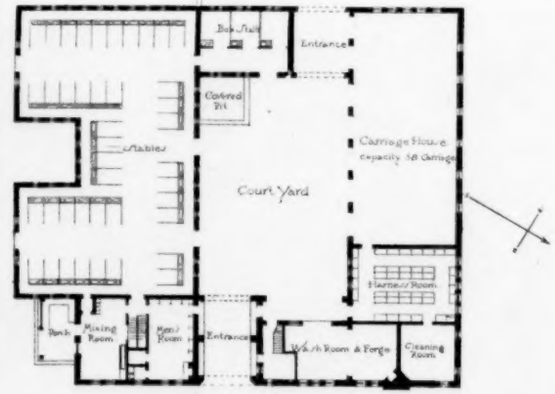
Design for Livery Stables

Devon P.R.R.

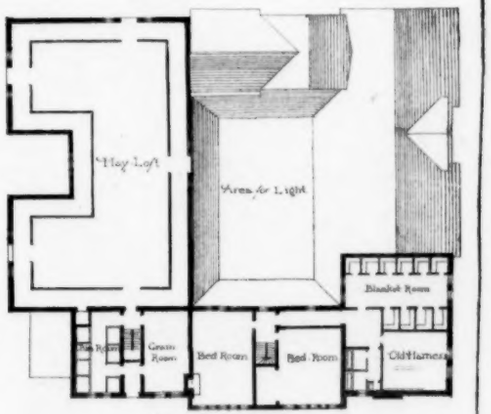
for Lemuel Coffin Esq.

Mr. W. Bleddyn Powell Archt. Phila. Pa.

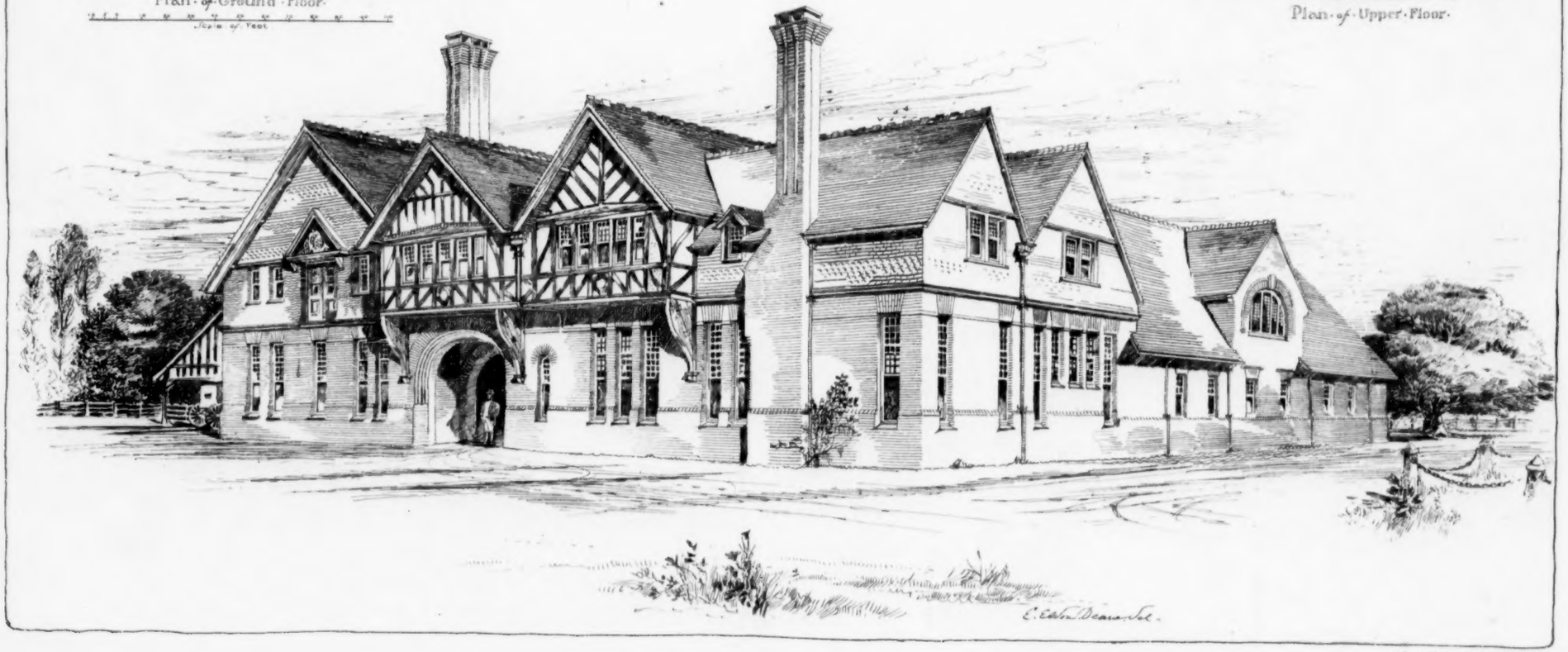


Plan of Ground Floor

Scale of Feet



Plan of Upper Floor



E. Eldon Deane del.

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The Allyn Memorial, Hartford, Conn.

A. Fehmer, Arch't. Hartford.

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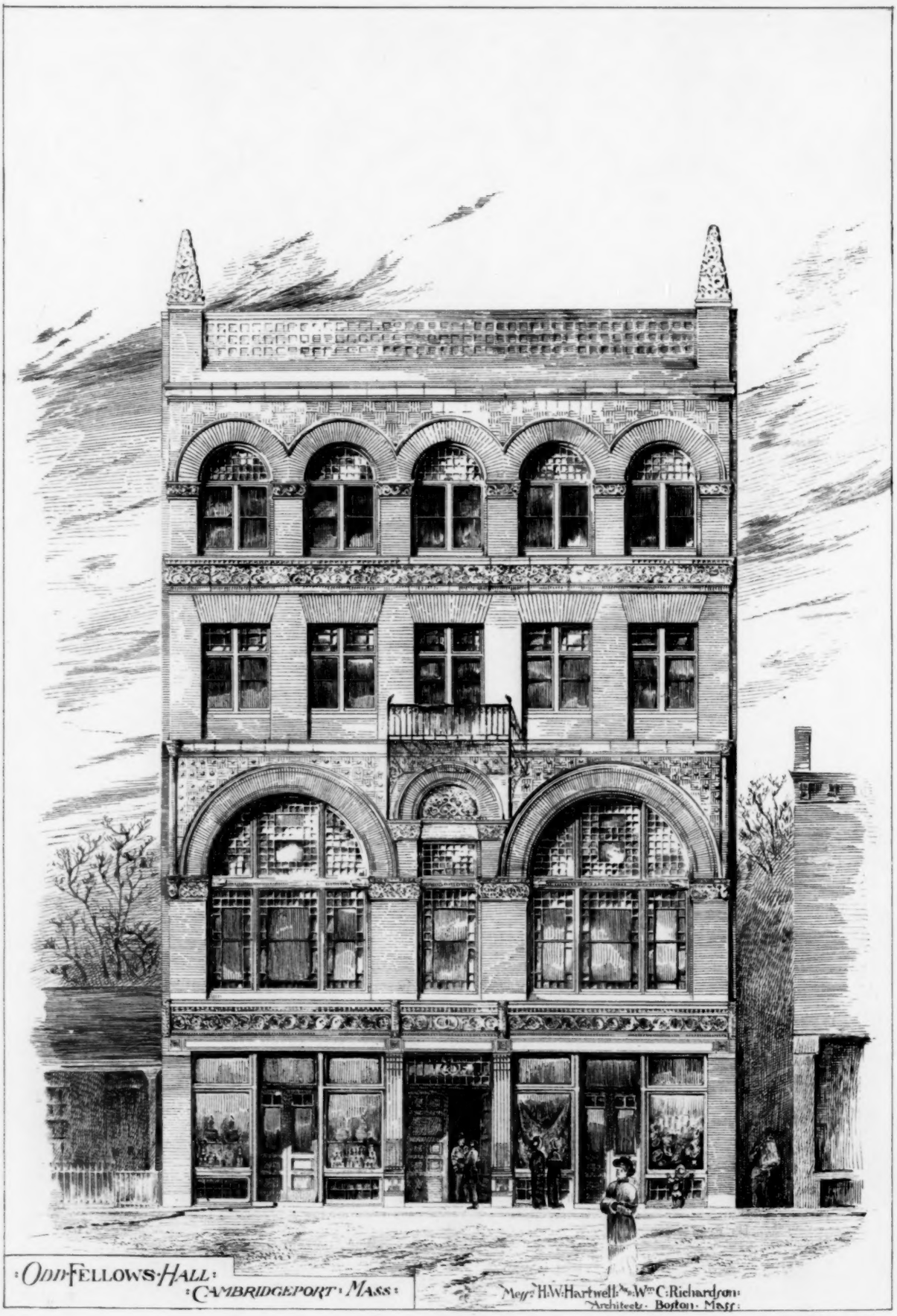

Odd Fellows Hall
Cambridgeport Mass

Messrs. H.W. Hartwell & Wm C. Richardson
Architects. Boston. Mass.

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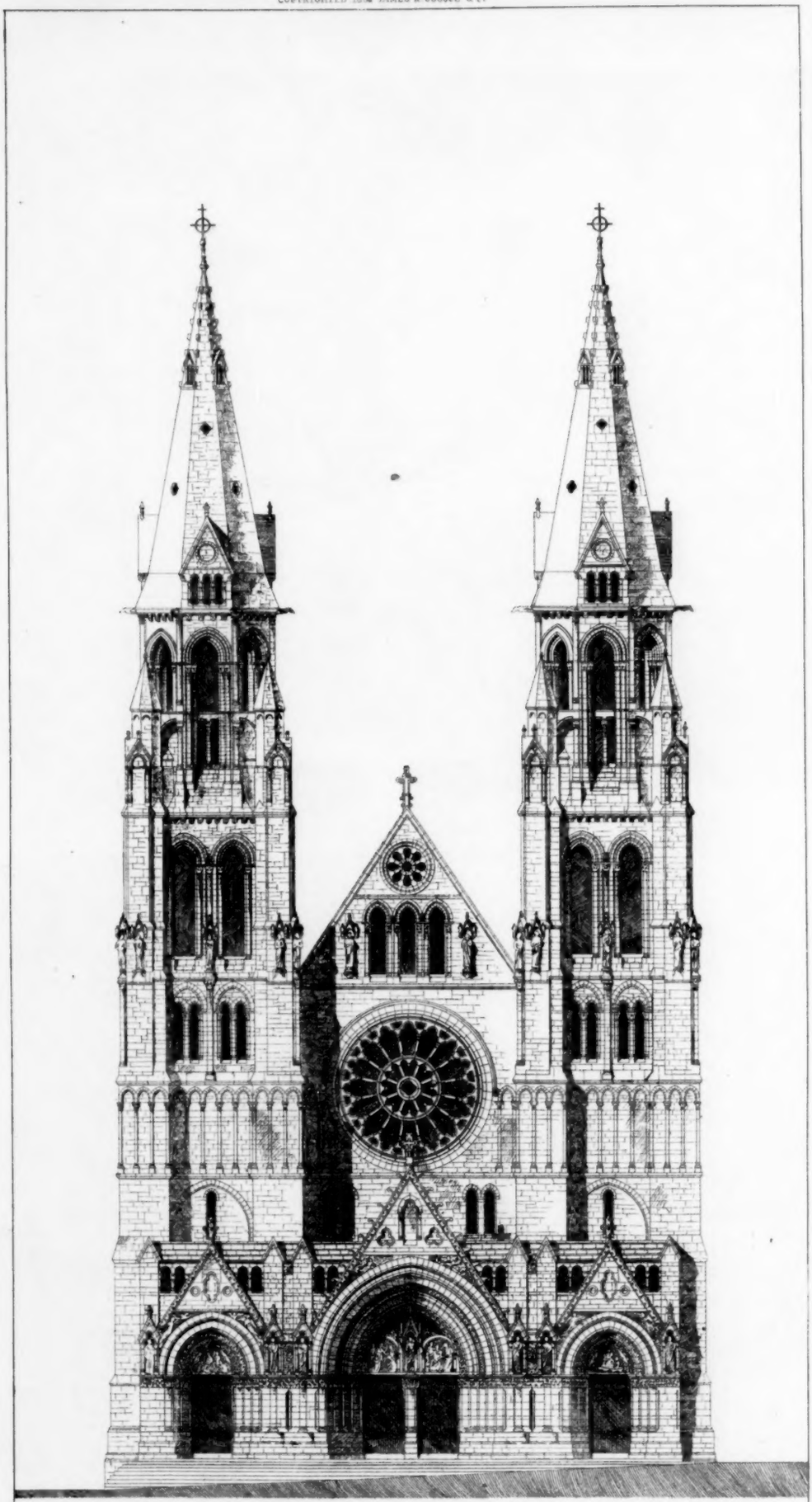

NEW CATHEDRAL OF ALL SAINTS ALBANY N.Y. WEST FRONT. ROBT. WILSON ARCHITECT.

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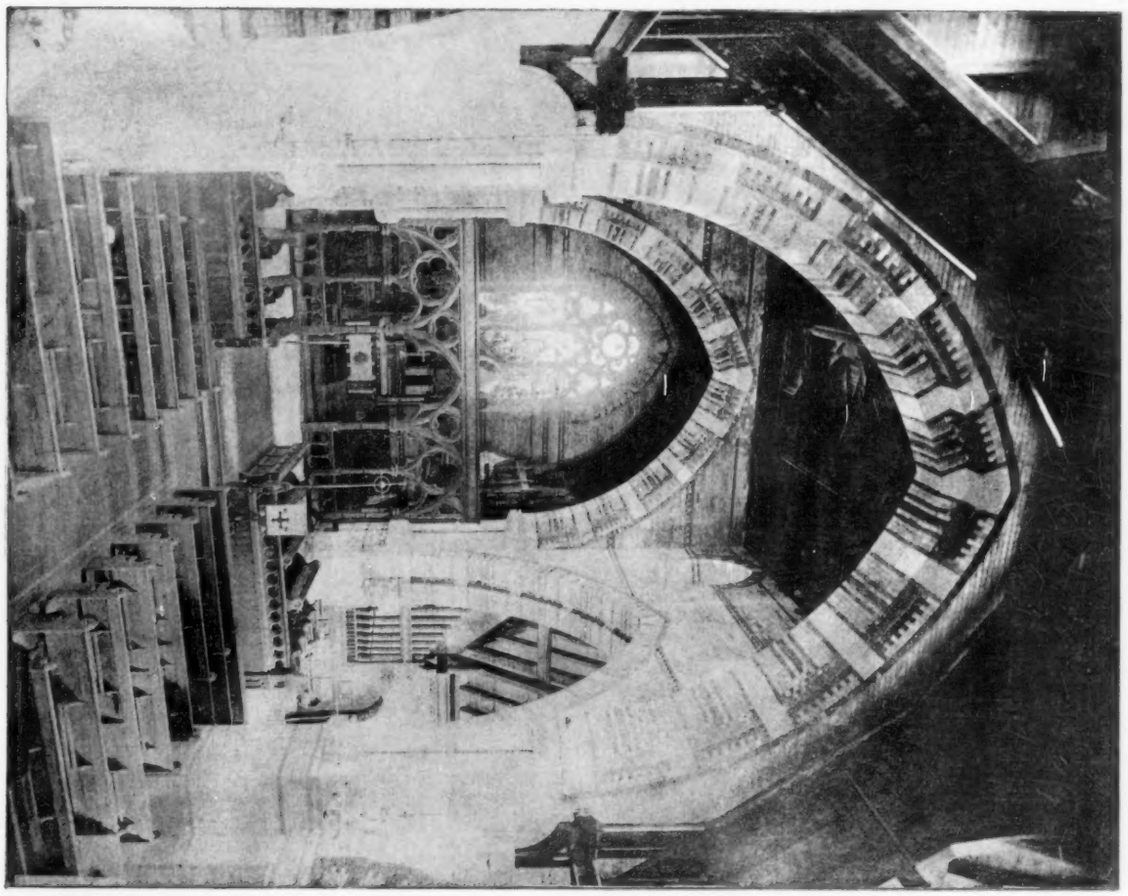

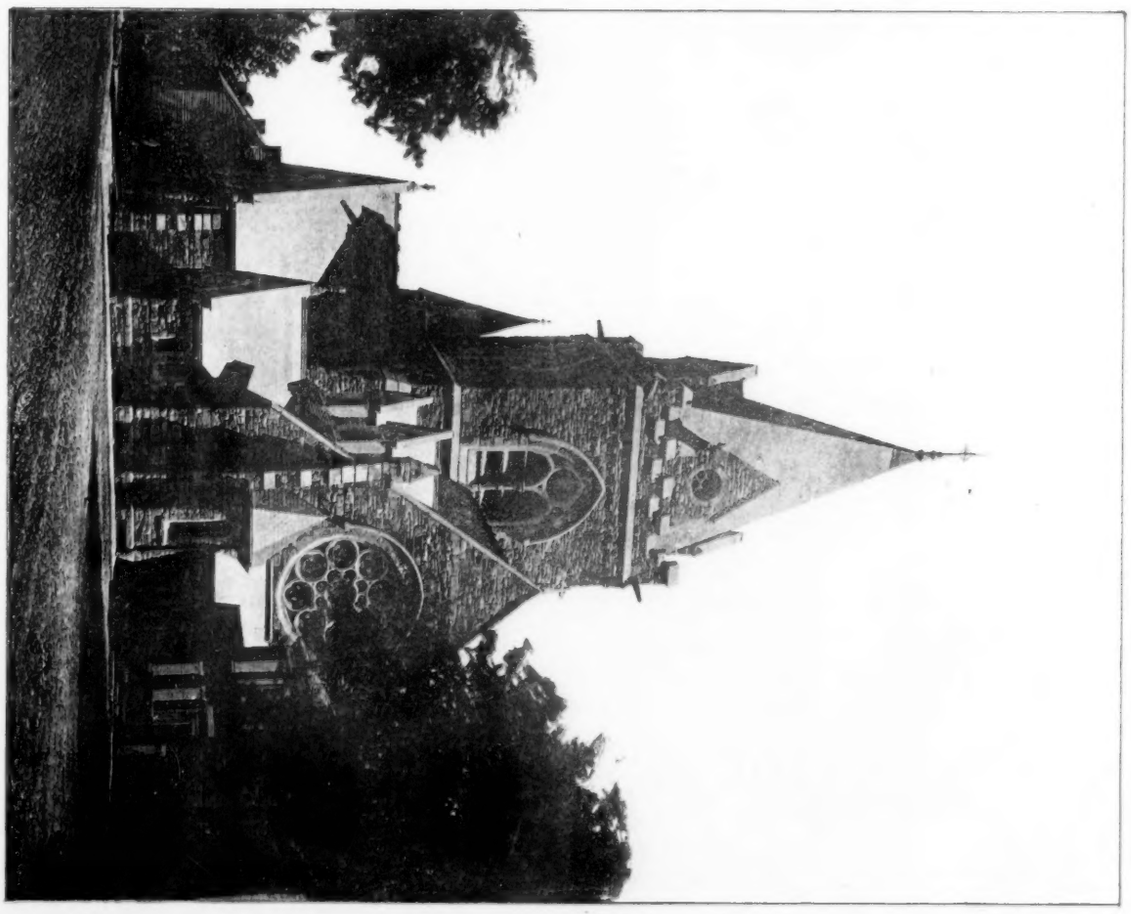

Christ Church, Danville, Pa. H. M. Congdon, Archt. New York.

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AMERICAN ARCHITECT AND BUILDING NEWS, MAY 16 1885 No. 490

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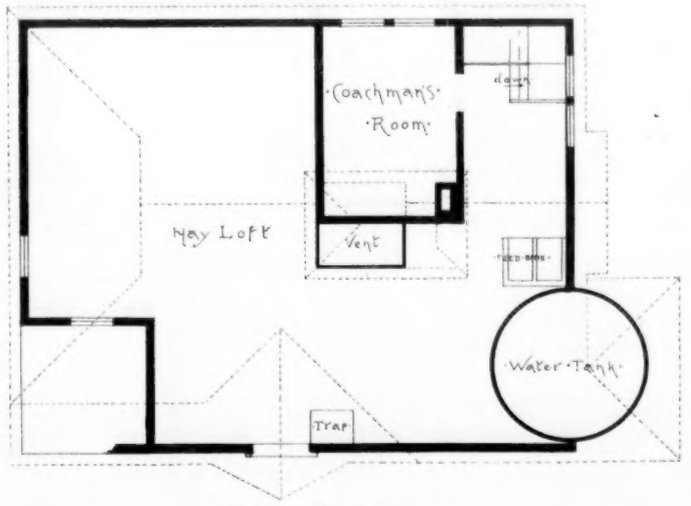
First Floor Plan



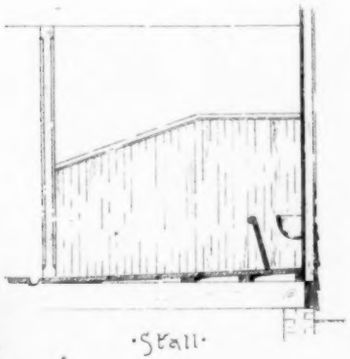
Second Floor Plan

End

Rear

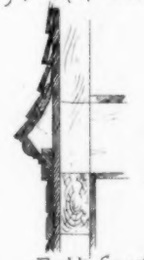
Scale for Plans

Scale for Elevations

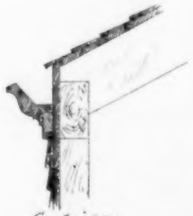


Stall

Sketch of Water Tank



Belt Course



Cornice

American Architect

Competition

Design for Stable by Cabby

HELIOTYPE PRINTING CO. BOSTON

often saunter about or talk earnestly in knots before some monument, and the words caught as we pass indicate an appreciative sense of what is seen. But not least do we rejoice in what the Museum daily does for the humbler crowd. Mechanic and artisan, with silent, almost awestruck family, plain, bonnetless servant-girls, and more dashing shop-girls, as well as robust apprentice boys, are all here, with a demeanor which is almost solemn, and faces on which is written true enjoyment. The veteran Ernst Curtius, who for nearly twenty years has been connected with the Museum, and gone in and out daily, assured me that the harmony and peace which first filled his being on passing through the collection come afresh over him every time he enters, and may we not believe that what always fills a great spirit with such devout emotion must also roll in myriad waves of less intensity over the souls of these masses?

This collection of casts is, as has been indicated, a great mine for earnest workers in deep shafts of science. Comparison, that firm ladder by which the human mind mounts ever higher and higher in its search after truth, here has very few rounds lacking. Not many are able, with a view to drawing sound conclusions, to carry in mind exact pictures of objects widely scattered in the museums; here, however, the juxtaposition of their casts makes lasting fleeting impressions, and from one monument, standing beside its compeer, light is thrown upon the infinite shades of noble endowment in individuals and races, as well as upon the effects of locality and age upon man's creative powers. Thus the golden chain of progressing human thought appears, linking together inseparably the higher and the lower creations, making them all precious in our eyes. To illustrate, if we chance, in the Berlin Museum, to pause before the casts of two heads, now placed side by side, although their originals are widely separated, the one being in Athens and the other in Germany, the great differences between the art of Greece and of Rome will at once be made clear to us, and the dependence of one upon the other will become delightfully evident. This intimate familiarity with many masterpieces of antiquity, made possible by a generous collection of casts, cannot be too highly prized. Heinrich Brunn, one of the greatest German archæologists of the day, assured me that often in wandering through his museum the statues long said nothing to him, but after repeated visits, suddenly "the scales seemed to drop from his eyes," and a revelation of some hidden truth concerning the workings of artistic genius came to him. To the modern artist intent upon finding the idea of the ancient master from the fragments the cast is invaluable. "To touch the masterpieces," said Canova, when invited to restore the Parthenon marbles, "would be sacrilege," but in the casts experiments may be made without end. Thus, without having tampered with the original, the beautiful and accurate restoration in Berlin of the Nike of Olympia, by Grüttner, reveals to us its grand sweep and harmonious conception. And so, who would not dread to see the massive pieces of the Nike of Samothrace, in Paris, attached to the marble, without careful previous experimenting in plaster. In Berlin casts of these broken fragments have been placed together so as to form a very grand whole, whereas in Paris the original pieces must still lie at the base of the marble statue until experimenting has been completed and the points of juncture have been made certain. The possession of casts may thus open up a field of productive activity to those even who are remote from the originals.

We will not tantalize ourselves by dwelling upon the advantage of possessing such great originals, nor upon the impossibility of transfiguring the cold opaqueness of plaster into the translucent tenderness of marble or the bewitching brilliancy of bronze. But let us remember how great our debt to this humble material. The now widely-extended familiarity with that priceless gift, the Hermes by Praxiteles, we owe solely to plaster casts, for the mellow original still lies, well-nigh unseen, in a secluded corner of Greece. Let us not forget, also, the impression made by these humbler mediums of artistic thought upon so privileged a mind even as that of George Eliot. In her recently published life is the following remarkable passage, written to a friend from Berlin: "We went again and again to the new Museum, to look at the casts of the Parthenon sculptures, and registered a vow that we would go to feast on the sight of the originals the first day we could spare in London. I had never cast more than a fleeting look on them before, but now I can in some degree understand the effect they produced on their first discovery." This "vow" was not an empty figure of speech, for on returning from the Continental trip, we find from her diary that she "fixed on lodgings" on April 23, and only two days later, on April 25, "went to the British Museum," doubtless to see the Parthenon sculptures there preserved.

Casts can, moreover, never be guilty of the distressing untruths often told by copies, whether in reduced or natural size, for between us and the great original there must always intrude in the copy the person of the copyist, while casts are absolutely immediate. The mould from which the cast is formed, being taken directly on the original itself, every beauty or defect must be reflected exactly in this purely mechanical reproduction. Photography, also, and the various processes founded upon it, cannot be as satisfactory in representing large sculptures as are casts, since by a stern necessity of optics the photograph enlarges inordinately all projecting parts, and thus makes shocking and misleading disproportions never dreamed of in the original work. What a boon, then, to mankind the possession of such truthful reflections of the choicest treasures of the past, making possible to all, however remote, a delightful intimacy with the grand outline and touching impersonality which preeminently mark Greek art. Plaster casts are, moreover, most inexpensive and consequently within the reach of an eager public.

It is astonishing, in looking over the catalogue of the Berlin Formerei, to find how small the outlay required to purchase very gems of art, and the same is true of those to be obtained in Italy, Vienna or London. To the original cost, I am informed by Herr Geheimrath von Dielitz, Secretary and Treasurer of the Royal Museums, should be added thirty-five per cent for packing and fifteen per cent for transportation. How skilfully, moreover, the packing may now be done appears from the fact that in three thousand five hundred large cases recently sent off by Herr von Dielitz there were only five objects injured in the transport. The casts thus exported are, if desired, prepared with von Dechend's preserving process, at an additional expense of ten per cent on monuments costing originally one hundred marks, but only five per cent on everything above that. The estimates made by von Dechend for providing a museum with his process and thus avoiding this additional per cent are in detail as follows: The machine, which is used both for applying the preserving chemicals and for cleaning, costs, at the outset, four thousand marks; chemicals sufficient for preserving a medium-sized figure, six marks, the amount needed being in proportion to the size of the work, so that for a collection of about six hundred pieces, Dr. von Dechend estimates that the total for chemicals would amount to another four thousand marks. This expenditure of eight thousand marks for a new museum would provide a rich outfit, enabling it to make every new cast coming in, no matter from what part of the world, always safe from the inroads of dirt and moisture. The running expenses of the machine are slight. Two ordinary workmen, or even boys, can manipulate it, as for this purpose no unusual skill is required. Thus, a short time since, when von Dechend was summoned to Cassel to administer his preparation to the whole collection there, two common porters (*dienstmänner*) were called in from the street, and their work was perfectly satisfactory. For the weekly dusting in Berlin more labor is required; two of the regular attendants and three extra workmen being employed every Monday. The expense of this dusting of the immense collection, so large that it can only be gone through with once in six weeks, is thus but five hundred marks a year.

The wide prevalence of museums of casts in Germany has already been alluded to. Paris also has extensive collections: one in the Ecole des Beaux-Arts, and the other in the Palace of the Trocadéro, and London, richer in great originals than any other northern city, has her carefully selected collection in the South Kensington Museum. In America, Washington, Boston, Amherst, Northampton, and other college towns have their collections; Chicago is about to start one, but New York, the home of wealth and poverty, still offers no such privileges to its hungry masses and eager students. How earnestly it is to be hoped that the same wisdom which has elsewhere found it necessary to establish art collections in close proximity to scientific centres, for purposes of higher education, will influence those to whom the interests of the New York public are dear! Our people at large imperatively require ameliorating surroundings, such as are furnished by an ennobling familiarity with the best bequeathed to them by the great past. From the stifling walls of their daily prose life are there not needed wide outlooks upon the smiling fields and sunny slopes of a refreshing art? And with the marvelous reproductive processes of the present at hand, how easy to bring to them such privileges! New fields of thought and deep sources of enjoyment would thus be opened up to them, and powers without doubt now idly slumbering would be awakened to happy activity. A gift of one thousand dollars from a hundred public-spirited men would furnish a beautiful collection of the best produced by classical antiquity. The collection of casts in South Kensington (exclusive of travelling expenses incurred in getting it together) cost only £10,000, and with double that sum how great the possibilities! Besides, the present is the time to make a truly ideal collection.

There are objects in the older museums which might now easily be dispensed with, for as the horizon of our knowledge of antiquity has greatly widened by reason of remarkable discoveries, what was conspicuous and all-attractive forty or fifty years ago, has now come to be of minor importance. We are no longer, like Rafael Mengs and Welcker, confined to the hackneyed reproductions of a late and imitative art, too often disfigured by the restorer's hand. To us there are now opening up in delicious profusion the actual creations of the Greek chisel, from its earliest down to its latest day, and all these still untouched by "shallow botchers," whose unwitting meddling has been so destructive to the priceless art character of ancient objects and so baffling to science. Thus, exquisite tombstones just discovered on Greek soil now vie with imposing temple sculptures in demanding our attention. Altar, public square, and open-air shrines throughout the ancient Greek world, all through the medium of the faithful cast, offer their treasures to our delighted grasp. Would not a wisely-chosen selection of these monuments, set up against a rich background of color, with the high light so necessary to bring out all their luxury and chastity of line, afford our public perennial sources of instruction and ever-ennobling enjoyment? Let these casts, moreover, be so mounted that they can easily be moved about, for purposes of comparison and contrast; let them be sufficiently isolated, so that each object will shine in its own peculiar glory, and we should have a collection of which any city might be proud. From such a beginning, embracing the best in classic art, how easy

then would be the steps toward procuring a library and historical series of electrotype coins, always two of the prime essentials in a working museum! To all these in time there might be made valuable accessions from the art of the remote Orient, the Middle Ages, and the Renaissance.—*Lucy M. Mitchell in the New York Times.*

CHARCOAL.

Statue of Diderot by Barlholdi.

CHARCOAL is a well-known black substance, possessing many peculiar and singular chemical properties. The *puro baso* of charcoal is termed carbon, and the only body in which carbon exists in an entirely pure state is the diamond, the most precious and valuable of all gems; and is so esteemed on account of its hardness, brilliancy, and refractive powers.

Wood charcoal, if well burned and otherwise properly prepared, should be of a jet black color — tasteless, inodorous, porous, and brittle. It cannot be fused or melted in any heat which a common furnace is capable of raising, but under a very powerful galvanic apparatus it is first hardened and then becomes volatile. The ascertained and well-known fact of charcoal being insoluble in water has led to many practical errors in the charring of wood for out-door works and situations where it is alternately wet and dry, under the impression that if charred it is rendered indestructible; while the evident result is, that charring of posts or partial burning only serves to crack and open the tissues of the wood; and unless a liberal application of Archangel or other tar is given, in order to fill up the interstices, an evil instead of a good result is produced by charring posts, etc.

Owing to the peculiarly porous nature of charcoal, it absorbs a very large quantity of common air and has a particular affinity for certain gases. This affinity, according to scientific showing, varies materially and essentially in charcoal produced from different descriptions of wood; hence the special demand and high prices paid for some kinds. to the rejection and low prices of others. The chief distinction and merit of wood for charcoal consists in its hardness and closeness of the grain; but as in some descriptions the sapwood is very soft, and hardwood extremely hard, the value is very materially altered. The sapwood of Oak, for example, is as soft as Ash, while its heartwood is as hard as Mahogany. Taking the best quality of wood, however, of each species, the heartwood of Oak, Laburnum, Sweet Chestnut, etc., and other descriptions, such as Dogwood, Alder, and Birch, the following statement will show pretty nearly the proportionate relative values of the various descriptions of wood for gunpowder charcoal: —

		Per cent.			Per cent.
Rhamnus Frangula	contains	27	Sycamore	contains	19
Lignum-vitæ	"	26	Elm	"	19
Mahogany	"	25	Willow and Poplar	"	18
Laburnam	"	25	Birch and Alder	"	17
Boxwood	"	24	Ash	"	17
Sweet Chestnut	"	23	Hazel	"	17
Oak	"	22	Mountain Ash	"	17
Holly	"	20	Scotch Fir	"	16
Walnut	"	20	Larch	"	16
Beech	"	19			

In addition to the above there are various other descriptions of wood probably of equal value; but as they are little used, and only when mixed along with other sorts, it is impossible to give any reliable information respecting their real value. Although charcoal, as already stated, is inodorous, it nevertheless absorbs both odorous and coloring properties and substances, and is on that account extensively used as one of the best filters and purifiers for water, and as a preservative from decay or putrescence of many animal substances.

Amongst the numerous applications of charcoal, the following may be mentioned: It is extensively used as a common article of fuel, especially for heating hall stoves, bedrooms, etc.; but due precautions must in such cases be taken for ventilation, because after heating, the carbonic acid gas emitted from the charcoal has frequently proved fatal to human life. Charcoal is also extensively used in cooking and in boiling preserves, having the special advantage of producing any necessary degree of heat without smoke or dust. It is likewise used in forges and in extensive iron-works, having the property of converting common iron into steel; and also in the manufacture of wire, in transforming soft into hard, or what is commonly termed bright wire, and is in this respect the only material which has as yet been discovered suitable for the purpose. In the arts and manufactures charcoal also occupies an important place, as, for instance, in the manufacture of ivory black, lamp black, varnish, and black paint, of which it forms the basis; also in the manufacture of ink, in destroying color, correcting or destroying odors, in purifying syrups, honey, etc.; in clarifying wines and other liquors; in deterring putrefaction in meat, and in retaining heat, and also in many medicinal applications.

In farriery, also, it is often used with good effect in the case of cracked heels in horses, when, being finely powdered and mixed with linseed meal, it is used as a liniment. It may also be used in powder in cases of fœtid ulcers, and is then mixed with lard or sweet oil before being applied. Another use to which this useful material is adapted is in the cleaning silver, brass, and copper, when it is combined with other substances, and proves very beneficial. And lastly, it is employed in the manufacture of gunpowder of two classes, commonly termed rock or blasting powder, and gun or sporting powder.

There is yet another but very important use to which charcoal may be applied, and one which is daily and steadily increasing, namely, as a manure. It may be applied in a variety of ways and for many purposes, but the following composition is found to possess the most important advantages for general utility. Take twenty pounds of charcoal, four pounds of night-soil, and one pint of urine, and having mixed them well together, apply in either a liquid or dry state to the crop as weather suggests. If liquid is used, dilute it with tank or rain water; or if urine from the yard is used, add a little quick-lime to correct the acidity. Another excellent mixture for general use is composed of twelve pounds night-soil, forty pounds cow or horse manure, twenty pounds charcoal, and two pounds saltpetre, all mixed together and converted into powder, and sown on the land similarly to bone-dust or guano.

Amongst florists charcoal is extensively used in its simple form, reduced to a fine powder. It accelerates the growth of young, delicate, and tender plants in a marked degree, and encourages cuttings and layers to strike root in a very decided manner. One of the greatest advantages, however, to the florist is the wonderful, nay, almost marvellous, effect it has in heightening the color of flowers.

In the manufacture of gunpowder, it appears that different countries use different proportions of ingredients. "In Prussia 75 per cent of saltpetre, 11½ of sulphur, and 13½ of charcoal are used." "In France 75 parts of saltpetre, 12½ of sulphur, and 12½ of charcoal; while in the United Kingdom 75 parts of saltpetre, 10 of sulphur, and 15 of charcoal are the quantities used." It is to be observed that the proportion of charcoal used in the United Kingdom is greater than in any other country, and this is accounted for from the superior method of preparing it — a method, however, which is partly kept secret by the manufacturers.

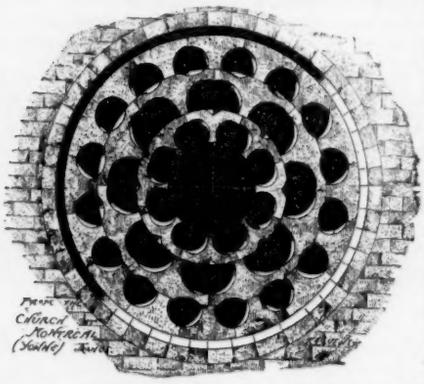
A few statements upon the manufacture of charcoal, or manner of burning it for common use, may, it is presumed, be acceptable to some readers. Charcoal, for common fuel purposes, such as, for example, drying hops, annealing iron, etc., is made from all sorts of wood, including Scotch Fir; but Larch is the most objectionable, and is seldom used for charcoal except sparingly amongst other sorts. While it is stated that all kinds of woods are used it is not to be inferred that all are equally good or valuable, even for subordinate purposes. Some sorts, indeed, are one-third, some one-half, more valuable than others. Hardwood is much more valuable than Pine or Fir, and the hard and close-grained sorts more valuable than the soft and porous. Large wood is not so suitable for charcoal as small wood, both because it is more expensive in the first instance to purchase, also on account of its requiring more labor to cleave, but chiefly because it yields proportionally less charcoal than small wood, weight for weight.

Wood cut for charcoal is generally in three foot or four foot lengths; and if the billets or pieces are over three inches diameter, they are cleft into two or more pieces, according to size of billet. If for powder, the wood of whatever sort is cleanly stripped of its bark, and for either purpose it is stacked up till dry till at least half seasoned, when it is taken down and laid in the following order for charring: A platform is first made of earth excavated from a circular trench surrounding it; the earthy platform is raised six inches higher in the centre than at the margin—or say nine inches deep in the centre and three inches on the outer margin. This platform varies from fifteen feet to thirty feet in diameter, according to quantity of wood to char, the time of doing it, and the condition of the wood as to dryness, etc. In the centre of the circle a round piece of wood is placed perpendicularly, with the small end downwards, and, in point of length, it must be about equal to the radius of the circle. Around this "eye-pole," as it is termed, the billets are laid in a horizontal manner slightly sloping towards the outside, which slope corresponds with the surface of the ground underneath. In this manner, pile after pile and tier after tier are laid till the whole is furnished with a flat, dome-shaped top. After all the wood is laid, a thin coating of straw thatch or turf is laid over it, and a few inches of earth laid over all, and firmly and smoothly beaten with the back of a shovel. The next operation is to withdraw the eye-pole, and fill the space it occupied with some inflammable substance, the best of which is half-burnt embers and charcoal; this is done to the extreme top of the pile, and then it is lighted at top and slightly covered up, but not too much, so as to admit sufficient air to make it burn. The strictest attention is now necessary, by night and day, to regulate and secure an equal fire in every part. This is done by inserting the point of a long pole, like a fork-handle, into any part that appears higher than the rest which admits the air, and attracts the flame to the aperture thus made; and when, at any such aperture, the surface falls too much, the hole is closed up, and another one made in

the next highest part. This operation is continued down to the surface of the ground and till the lowest tier is reached, and as long as smoke issues from the holes, after which it is known that the whole wood is sufficiently charred and is ready for opening. A medium-sized pit requires about six days to burn, and few pits are ever made requiring over six days.

The cooling, no less than the burning, is a very important process, and is done by first providing a large quantity of water and buckets to apply to the fire; then, by means of scrapers and forks the covering is carefully removed, care being taken to prevent any earth from falling in amongst the charred wood. The cooling and extinguishing of all fires requires great dispatch, otherwise exhaustion and waste is occasioned. When cooled, and after all imperfectly burnt pieces have been separated and removed, the charcoal is placed in bags containing two bushels each. The bags, however, are not put into any place of importance for at least twenty-four hours after being filled, in case of any unobserved embers of flame still remaining among them, for such have not unfrequently been known to cause serious conflagrations. — *Woods and Forests.*

PURIFICATION OF SEWAGE.



A DISCOVERY, which has been attended with a measure of success scarcely to have been expected, has been made at the Buxton Sewage Works. In a letter which appeared in the *Leek Times* the other day, it was stated that the sewage of Buxton had been allowed to fall into the River Wye, a short distance below the town, causing a considerable pollution of the river. Mr. Thomas Wardle, who has described the process, observes: "By a happy thought, the result of a number of experiments, Dr. Thresh, D. Sc., of that town, found that by diverting and adding to the sewage a mineral water which rises from the lower coal strata about two miles above Buxton, and which contains 1.2 grains per gallon of iron in solution as ferrous carbonate, and which, on exposure to the air, absorbs oxygen and falls as ferric oxide, coating the surface, as is well seen in the streams and ornamental water of the Buxton Gardens, with a copious precipitate of an ochreous deposit, the purification might be effected." Following out the hint, the authorities, it appears, have conveyed this ferruginous water by pipes to new sewage-tanks, a mile below Buxton on the river. These have been constructed from the plans of Mr. J. Hague, the borough surveyor. There the water is made to fall into the sewage matter with a small proportion of lime-ash, after the more solid portions are screened off as manure. The precipitate which falls to the bottom of the first tank is dense and flaky in character, but after passing through the series of tanks the sewage flows out in a clear liquid, leaving little precipitate in the last tank. A duplicate set of tanks is provided in case of an emergency, or during cleansing. After passing through the last tank, the sewage is made to flow over an artificial waterfall, and from thence over a shallow serpentine bed, where it becomes thoroughly oxidized, after passing which it enters the River Wye, a harmless and clear effluent. The trials made are said to have been satisfactory evidences of the value of the process. Mr. Wardle's analysis, made by Mr. Rigby from Dr. Wanklyn's methods, showed on the first trial the following results: sewage matter before treatment contained of free ammonia 11.74 per million; albuminoid ammonia, 1.60. The purified effluent just before it enters the river contained free ammonia 4.00 parts per million, and of albuminoid ammonia 0.30 ditto. The iron water contains 1.2 grains per gallon of iron, which, as ferrous carbonate, amounts to 2.5 grains per gallon. Both the sewage and purified effluent are said to be distinctly alkaline, the degree of hardness of the latter being 12.2 degrees by Clark's method. From the above statement of the experiment made at Buxton, the authorities of that favored town must have every reason to be pleased with the result. It is said that this is the first time an attempt has been made to treat sewage matter with natural ferrous carbonate, and if so, the experiment which has been so successfully made, ought to become known. Every chemist is aware of the value of oxidizing processes, and that iron may be used as a chemical carrier of oxygen to the organic matter, the iron in solution being first oxidized to the ferric state, and alternately reduced to the ferrous condition. The artificial waterfall is intended to oxidize the liquid. Lately, Mr. W. Anderson, M. I. C. E., has described the purification of water by iron. He proposes to bring the water into contact with a mixture of spongy iron and gravel, and, acting upon a suggestion of Sir Frederick Abel, Mr. Anderson made use of a revolving cylinder with inlet and outlet pipes, and with shelves for scooping up the iron, by which means a large quantity of water passing through the revolver enables it to dissolve a certain proportion of iron. The same authority adds: "By making suitable arrangements and choosing a favorable time with respect to the demands of a town, we were able to obtain samples of water that have been purified by the revolver only after proper exposure to the air, followed by filtration through one of the large sand-filters; the result obtained has been that the color was very little different from distilled water. The free ammonia was reduced from 0.32 grains per gallon to 0.001, and the albuminoid ammonia from 0.013 grains to 0.0045." If the results of the analysis given of the Buxton effluent be correctly stated, the effect of the mineral water in oxidizing the sewage matter has been to rob it of all dangerous properties, and to allow it to fall into the river in a perfectly innocuous condition. The works, constructed from the plans of Mr. Hague, the borough surveyor, have cost the sum of over £3,000, and, we believe, fully answer the purpose.—*The Building News.*

A SUCCESSFUL SUIT FOR COMMISSION.

AS comment on the following case we will say that it seems regrettable that architects do not oftener think it worth while to furnish us with reports of law-suits in which they have the misfortune to be engaged. We are not infrequently asked to give advice on certain points either before or after a suit is brought, but we cannot now remember any instance in which we were informed how these suits resulted. It seems to us that as we ask no payment for the services we render, the architects who in this way lay themselves under these slight obligations to us should feel called on to make their acknowledgments by reporting the results of the cases as to which our advice was asked.

A case of interest to all architects was decided by Judge Stewart in the City Court of Baltimore, without a jury, on April 25 last. A brief outline is as follows: In May, 1883, Mr. A. G. Davis employed J. A. & W. T. Wilson, architects, to prepare designs for a town house and stable, giving his ideas verbally and by outline sketches, also sending them several times to Washington, to examine buildings the features of which he fancied. They submitted several sketches, and after much delay and many changes on the part of the client, working drawings and specifications were accepted, and bids procured for the work, ranging from $48,000 to $60,000. They were objected to as too high, and after some alterations two more bids of $40,000 and $38,000 were received. The client offered one of these bidders $37,000, which was refused. He then employed a builder, who had not bid, to superintend the execution of the work and to let the contracts separately. Under this authority about $18,000 worth of labor and material were contracted for, when in March, 1884, the work was suddenly brought to a close, for reasons best known to the client. The architects then rendered their bill for 3½ per cent on $40,000, the lowest sum which the superintendent said the work would have cost. The client refusing to make payment, suit was brought and a verdict rendered the plaintiffs of 3½ per cent on $25,000. The defense claimed that the architects had been limited to the sum of $20,000, while the plaintiffs denied that any limit, beyond the character and size of the buildings, had ever been given them; showing the letter in which $37,000 was offered for the work. The defense claimed that the builder employed had stated that the work could be done for $25,000, which was flatly denied by the builder himself, who said that it would certainly have cost $40,000. The judge recognized the schedule of charges of the A. I. A., put in evidence by the plaintiffs, and gave his verdict according to its rates, though fixing $25,000 as, in his opinion, the amount which the client really desired to spend on the work, notwithstanding all the evidence to the contrary.

SPONGY IRON.

CHATHAM, ONT., May 8, 1885.

TO THE EDITORS OF THE AMERICAN ARCHITECT: —

Dear Sirs, — Will you please inform me through the columns of your paper, where spongy iron, for filtering purposes, can be obtained: its merits and probable cost? Respectfully, W. F. R.

[Address the Spongy Iron Water and Sewage Purifying Company, London, England. We doubt very much whether spongy iron can be had on this side of the Atlantic in condition suitable for the purpose.— EDS. AMERICAN ARCHITECT.]

"THE EVOLUTION OF THE ELEVATOR."

TO THE EDITORS OF THE AMERICAN ARCHITECT: —

Dear Sirs, — The quotation in your last number from a Germantown paper, as to the length of time passenger-elevators have been in use in this country, is misleading. The writer remembers one at the Fifth Avenue Hotel in New York in the spring of 1863, which was not at that time so great a novelty as to excite surprise.

E. L.

NOTES AND CLIPPINGS.

A Peculiar Test Case. — An apparently trifling, but, in reality, a very important suit has been brought by an obstinate citizen of Frankfort-on-the-Main, against the municipality. He sues for the recovery of one mark eighty pfennigs (forty-five cents United States currency), on the plea that the city has not furnished him the proper quantity and quality of water stipulated by contract. Plaintiff does not consider himself bound to fulfil his obligation if the city does not comply with its own, and hence has brought this test case, which is being anxiously watched by his fellow citizens. — *Exchange.*

The Severn Tunnel.—This year will see the completion of one of the greatest submarine engineering feats ever undertaken in Great Britain. The Severn tunnel was first begun by the Great Western Railway sixteen years ago, and the accomplishment of the great work has been delayed by difficulties which a few years back would have been thought insurmountable. Twice has an enormous volume of water flooded the works, through the accidental tapping of land springs; besides which, fissures in the rock were met with which let the tidal waters into the tunnel. The river is two and a quarter miles broad at the site of the works, but the tunnel itself is nearly double that length, in order to allow for the necessary gradient on either side, the crown of the tunnel being fifty feet below the deepest part of the river. The enterprise has cost considerably more than a million sterling. — *New York Evening Post.*

Wren's Towers. — Mr. John Clayton says: "It will be hardly necessary to observe that Wren's towers and spires were built 'in the most substantial and workmanlike manner,' and to adapt the words of modern specifications still farther, 'the materials used were the best of their respective kinds;' but here ends the similitude. Wren put a different construction on these words from that often given in the present day; with him none of the funds which should be expended in stability were wasted in decoration — a fault which is perhaps mainly attributable to the present defective state of competitions, with which Wren was not troubled. The walls of the towers vary from five feet to seven feet in thickness, and are of solid masonry, sometimes backed up with brick, but generally with stone of a rougher description. The stone is Portland, the timber oak, and the lead must have weighed at least ten pounds to the foot superficial. The floors in nearly all the towers are carried upon corbels, a preferable mode to inserting the ends of the beams in the walls, as the floors are more readily replaced when decayed, and the walls are not so liable to be injured by fire or strains. The towers have in nearly every instance convenient access to the belfry or parapet by circular stone staircases; and it is worthy of notice that the front line of the steps runs to the centre and not to the face of the newel, as is usual in Gothic staircases; this perhaps occasions a little more work, but gives a much better tread."

Exhibition Plans in Paris. — The *Journal Officiel* publishes the report by M. Antonin Proust, president of the commission appointed to organize the Universal Exhibition of 1889. It deals first with the choice of a site. In conformity with the wish expressed by the Municipal Council of Paris that the Exhibition should be on the Champ de Mars, the commission recommends that the site shall include, on the left bank of the Seine, the Champ de Mars and the space extending from the Avenue de la Bourdonnaye to the Ministry of Foreign Affairs, and, on the right bank of the river, the Trocadéro from the Avenue d'Antin to the avenue which bounds the Palais de l'Industrie, on the side of the Place de la Concorde. The *concours*, requiring a wide space, should, in the opinion of the commission, be conducted at Vincennes. With regard to the constructions which are to be erected it is suggested that there should be two great divisions — first, those devoted to purposes connected with the manifestation of ideas; and, second, those devoted to the exhibition of products. The commission recommends that greater development should be given to conferences and international congresses, the success of which was great in 1878. The libraries, laboratories, and halls for the conferences will be placed near one of the entrances to the Palais de l'Industrie. There fêtes will be organized and prizes distributed. In the space comprised between the avenue parallel to the Place de la Concorde and the Avenue d'Antin all that relates to education will be grouped. The Seine will divide the two great categories, the manifestation of ideas being on the right, and the exhibition of products on the left bank. The river will be crossed by a bridge doubling the Pont des Invalides, which by its height will not interrupt the traffic on the right bank. The esplanade of the Invalides will be devoted to the Colonial Exhibition, and to that of living animals, which will only last a fortnight. A part of the Quai d'Orsay and the Quai d'Alma will be the site of the Agricultural Exhibition. M. Tisserand has prepared a scheme for this section, the object of which will be to give exact ideas of the conditions and methods of culture in each country. Two palaces will be erected, one near the Avenue de la Bourdonnaye, devoted to the arts, the other near the Avenue de Suffren, to the sciences. The commission being consulted with regard to the permanency of a part of the constructions to be erected in the Champ de Mars, recommends that these two palaces just referred to should be preserved. It estimates at 50,000,000 francs, the total of the expenses necessary for the various buildings to be constructed and fitted up. The receipts anticipated to cover these expenses are grants from the city and the State, 28,000,000 francs; admissions day and night, 14,000,000 francs; concessions, 15,000,000 francs; sale of the materials, 1,000,000 francs; in all 58,000,000 francs. Thus a profit will be left of 8,000,000 francs to meet contingencies. The commission recommends that exhibitors should be made to pay for the space allotted to them, and that in return they should be allowed to sell their products. The report concludes with a proposal to found an Association de Garantie, with a capital of not less than 10,000,000 francs, and not exceeding 24,000,000 francs, to which, however, no appeal will be made until the 28,000,000 francs have been spent and the total receipts of the Exhibition have proved insufficient. — *Paris Letter to the London Times.*

The Bennington Battle Monument. — The recent meeting of the Bennington Historical Society appears to have been a resolute step in the direction of building a suitably grand monument to commemorate the battle of 1777. This meeting disclosed the important fact that local sentiment is wholly averse to the erection of the artistic innovation which the committee upon design, under the leadership of E. J. Phelps, minister to England, had commended to the Monument Association. The Historical Society declares the fact that it is the parent of the monument association, the procurer of the legislative charter, and principally the acquirer of the large fund, about $85,000, for monument purposes. This fund consists of $40,000 voted by Congress, $30,000 given by the States of Vermont, Massachusetts and New Hampshire, and the balance secured from individual contributions. Inasmuch as none of the appropriated fund is available, owing to rigid charter restrictions, until after the approval of a design selected by the Association and by the President of the United States, also the Governors of the three States named, no interest of consequence has been realized upon the fund, which, created long ago, has awaited the slothful action of the Association in the matter of agreeing upon a design. It is now confidently expected that a design will be decided on in August; also, that prompt action may be taken in building the monument. Much controversy has arisen as to whether the present fund is ample to build a commanding monument, the charter prohibiting any work thereon until money sufficient for its completion should be at the command of the Association. In the opinion, however, of the masses of the people, the present fund when in hand, increased by interest accumulations, will properly build a great structure, imposing, symmetrical, symbolical of the importance of the event and the decisive victory. It is understood that the stone suitable for such a monument can be found near the proposed site, near the old Continental store-house at the Centre village, formerly Bennington proper. It is felt that the majesty of art is a proper conception of all these considerations, rather than simply the contemplation of polished figures, which ignore patriotism, the simplicity of our people, and the noble history of this struggle for liberty. The society at the meeting referred to appointed a committee of forty, with ex-Governor Hiland Hall of your city as chairman, to obtain designs proposed, etc., which committee is a sort of "council of safety" to bring to a successful issue the monument project. The whole tenor of the speeches at this meeting developed unmistakably the earnestness and unity of the members that no mistake should be made, no funds invested, and no dishonor stain the noble undertaking. A. P. Childs of your city was elected, with others, an honorary member of the society. — *Correspondence of the Springfield Republican.*

A Tale of Eddystone Light. — Captain Parselle of the White Star steamship "*Adriatic*" spins the following yarn in the New York *Tribune* apropos of so-called tidal waves in mid-ocean: "About three weeks ago on my last trip back to England we called at Queenstown. There I met my friend, Mr. Thomas Gray, the Secretary of the London Board of Trade, a thoroughly well-known man, whose word is as good as his bond. He told me in good faith the following story and said he knew it to be true: Some time ago, precisely when I don't just now remember, a new light was being put in the Eddystone light-house. This house, you know, stands on a solid rock which the sea entirely covers at high water. The building is a circular iron [*sic*] tower, hollow in the centre, and about nine feet in diameter. The materials which were used to fix the new light were brought by steamers to the rock, and holes were opened in the base of the light-house, through which they were admitted into this hollow space. Then they were hoisted up by derricks to the top of the light-house. One afternoon the son of the architect, a young man just about of age, was standing at the top of the tower, looking down through this hollow space, a distance of 140 feet to the rock below. Suddenly he became dizzy and fell headlong into the abyss. Just at that opportune and Providential moment a storm-wave, such as I have been describing, broke against the light-house. The hole in its base had not been closed, and in the twinkling of an eye, at the very moment the young man fell, the water rushed in through these holes, up the hollow tower, and received the falling form. Receding immediately, the water left him, alive and none the worse for his ducking, on the rock at the tower's base!"

The Pollution of Well-Water. — For thirty-five years past a brewer at Brentwood, England, has drawn a supply of water for his business from a well sunk through clay and sand, and, by means of a continuation of pipe, reaching the chalk layer at a distance of over 500 feet below the surface. A similar well was owned by a neighbor, who, having no use for it as such, converted it into a sewer by direct connection with his drain. The result was that the brewer's well was ruined, the water-supply being common to both. The brewer brought an action against his neighbor, and in the first instance was defeated, but on an appeal to a higher court the decision was reversed, and the principle established that no one has a right to pollute a subterranean water-supply to the injury of another person. — *Hydraulic Plumber.*

Recent Surveys show that the entire city of Virginia, Nevada, has moved over thirty inches to the east since the big fire of 1875. The Maynard Block on Golden Hill is known to be gradually sliding down in the direction of Gold Cañon, and has moved nearly two feet since its erection. This movement is so gradual that it does not affect in any manner the safety of the buildings, as the ground to a depth of nearly one hundred feet to the bed-rock is known to be continually sliding. It is a well-known fact among practical miners that the ground on which Virginia City is built is what is termed a slide, and that it is necessary to sink nearly one hundred feet before finding the natural bed-rock. — *Boston Journal.*

A Building-Law for Cincinnati. — The Builders' Exchange has resolved to petition the Legislature to enact a building-law for this city and to appoint an inspector of building. A committee has been appointed to draft such a law and have it in readiness for the Legislature next fall.

BUILDING INTELLIGENCE.

(Reported for The American Architect and Building News.)

[Although a large portion of the building intelligence is provided by their regular correspondents, the editors greatly desire to receive voluntary information, especially from the smaller and outlying towns.]

BUILDING PATENTS.

[Printed specifications of any patents here mentioned, together with full detail illustrations, may be obtained of the Commissioner of Patents, at Washington, for twenty-five cents.]

316,871. LATCH. — Edward W. Brettell, Newark, N. J.

316,875. SASH-FASTENER. — William J. S. Bryan and Ira Boutell, St. Louis, Mo.

316,895. CONSTRUCTION OF HOUSES. — Alva Hubbard, Baltimore, Md.

316,898. CHIMNEY-CAP OR VENTILATOR. — Moses W. Kidder, Lincoln, Mass.

316,904. BRICK-KILN. — Seth B. Moe, Chattanooga, Tenn.

316,939. BRICK-PRESS. — Joseph R. Bowers, Concord, N. H.

316,940. WINDOW-GLASS FASTENER. —John Braun and Ferdinand Bohn, Buffalo, N. Y.

316,960. PLATFORM FOR FIRE-ESCAPES. — Richard Hammill, Chicago, Ill.

316,962. WASTE-PIPE TRAP AND VALVE.—Patrick Harvey, Chicago, Ill.

316,964. ROOFING COMPOUND. — Henry C. Hawes and James E. Green, 2d, Belleville, N. Y.

3169,66. AUTOMATIC FLUSHING-APPARATUS.— Byron J. Healy, Kalamazoo, Mich.

316,969. FIRE-ESCAPE.—William F. High, Reading, Pa.

316,976. APPARATUS FOR COOLING BUILDINGS, ETC.—Henry C. Johnson, Meadville, Pa.

317,004. MIXED PAINT. — William F. D. Pascoe, James Molier Haines and John Butland, South Easton, Pa.

317,005. HOT-AIR FURNACE.—Lewis Patric, Springfield, O.

317,006. COMBINED OPEN GRATE AND HEATER.— William W. Patton, Philadelphia, Pa.

317,011. TRAP FOR EAVES-TROUGHS. —William B. Porter, Troy, Pa.

SUMMARY OF THE WEEK.

Baltimore.

BUILDING PERMITS.—Since our last report forty-three permits have been granted, the more important of which are the following: —

S. R. Robinson, 4 two-st'y brick buildings, e s Fulton St., s of Baker Circle.

John G. Vaupel, three-st'y brick building, s s Hamburg St., e of Creek Alley.

Wm. Carback, 4 two-st'y brick buildings, w s Chapel St., between Eager and Chase Sts.

E. H. Presan, three-st'y brick building, e s Pennsylvania Ave., between McMechen and Wilson Sts.

C. Zeigler, three-st'y brick building, s s Baltimore St., between Frederick St. and Market Space.

John Clark, three-st'y brick building, s w cor. Randall and Patapsco Sts.; 2 two-st'y brick buildings, s s Randall St., and 2 two-st'y brick buildings, w s Patapsco St., s of Randall St.

John Behrner, three-st'y brick building, n e cor. Hanover and Church Sts.

Geo. C. Hershman, 4 two-st'y brick buildings, w s Chesapeake St., s of O'Donnell St.

M. Martin, three-st'y brick building (square), e s Charles St., between Hoffman St. and Jones Falls.

J. H. Rosengam, 2 three-st'y brick buildings, n s Sarah Anne St., between Myrtle Ave. and Fremont St.

E. W. Gorman, 7 two-st'y and mansard brick buildings, e s Patterson Park Ave., n of Fairmount Ave.

J. P. Brandon, 2 two-st'y brick buildings, w s Ropewalk Alley, s of Heath St.

S. S. Clayton, four-st'y brick building, s s Fayette St., between Charles and St. Paul Sts.

M. De Athley, five-st'y brick building, in rear n e cor. Eutaw and Camden Sts.

Boston.

BUILDING PERMITS. — *Wood. — Saratoga St.*, stable and car-house, 112′ x 119′; owner, Metropolitan R. R. Co.; builder, John Quirk.

Pynchon St., Nos. 215, 217, 219 *and* 221, dwell., 20′ x 40′; owner, Mrs. Hannah Dudley; builder, Wm. Tobin.

East Third St., Nos. 619 *and* 621, dwell., 20′ x 28′; owners, R. & A. Woodsome; builder, J. Hastey.

C St., near Boylston St., dwell., 25′ x 45′; owner, Solomon Jacobs; builder, Alexander McDonald.

Call St., near Caroline Ave., dwell., 23′ x 32′; owner, James Tirrell.

Williams St., near Forest Hill St., carriage-house, 16′ x 34′ and 37′; owner, Miss Susanna E. Cary; builder, F. B. Moses.

Cambridge St., near Mansfield St., dwell., 24′ and 28′ x 34′; owner, Joseph S. Paine; builder, F. W. Stevens.

Blue Hill Ave., near Brookford St., dwell., 22′ x 44′; owner, Della Kerrigan; builders, Gilbert & White.

Brooklyn.

GRANITE CONTRACT.—The contract for stone-work on the Brooklyn Post-office building has been awarded to the Bodwell Granite Company, of Maine, at its bid of $94,000.

BUILDING PERMITS. — *Gold St., No.* 242, w s, 150′ s Concord St., four-st'y frame tenement (brick-filled), tin roof; cost, $4,500; owner, Henry Rausch, 244 Gold St.; architect, F. J. Berlenbach, Jr.

Eleventh St., s s, 97′ 10″ w Fifth Ave., 12 two-st'y brown-stone dwells., tin roofs, wooden cornices; cost, $6,000; owner and contractor, S. B. Oulton, 188 One Hundred and Thirty-eighth St.; architect, — Wirth; mason, — Dunkley.

Fourth St., w s, 25′ n North Tenth St., 6 four-st'y frame tenements (brick-filled), tin roof; cost, each, $5,000; owner, Henry Hamilton, 286 Fourth St.; architect, A. Herbert.

North Tenth St., n w cor. Fourth and North Eleventh Sts., s w cor. Fourth St., 2 four-st'y frame stores and tenements (brick-filled), tin roofs; cost, each, $5,500; owner and architect, same as last.

Madison St., s s, 300′ w Ralph Ave., 4 three-st'y frame tenements, tin roofs; cost, each, $3,000; owner, Peter Young, 209 McDonough St.; architect and builder, W. J. Conway.

Halsey St., n s, Patchen to Ralph Aves., 45 three-st'y frame tenements, tin roofs; cost, each, $3,000; owner, Peter Young, 209 McDonough St.; architect and builder, W. J. Conway.

Putnam Ave., s s, 300′ w Ralph Ave., 12 three-st'y frame tenements, tin roofs; cost, each, $3,000; owner, Peter Young, 209 McDonough St.; architect and builder, W. J. Conway.

Prospect Ave., s s, about 200′ e Sixth Ave., 5 three-st'y frame tenements, (brick-filled), tin roofs; cost, each, $4,000; owner and contractor, Richard Chidwick, 404½ Seventeenth St.; architect, W. H. Wirth; mason, O. O'Keefe.

Broadway, s w cor. Bartlett St., four-st'y brick store, tin roof, iron cornice; owner, J. M. Reinhart, on premises; architect, A. Herbert; builders, U. Maurer and J. Rueger.

Park Ave., s s, 75′ e Grand Ave., three-st'y tenement, tin roof; cost, $4,300; owner, August Postel, 344 Park Ave.; architect, S. Harbison; builders, P. Sheridan and R. Ford.

Lexington Ave., n s, 350′ e Bedford Ave., 15 two-st'y brick dwells., gravel roofs; cost, each, $4,500; owner, Thos. H. Robbins, 178 Garfield Pl.; architect, A. Hill; builders, J. R. Robbins and S. C. Prescott.

Prospect Pl., n s, 320′ e Albany Ave., one-st'y brick boiler-house and laundry, tin roof; cost, $5,000; owner, Roman Catholic Orphan Asylum; architect, Wm. Schickel.

Chicago.

BUILDING PERMITS. — H. Fischer, two-st'y dwell., 595 Larrabee St.; cost, $4,000.

Dr. Madison, four-st'y store and dwell., 417 West Madison St.; cost, $10,000.

Le Grand Company, additional story, 430 North Clark St.; cost, $5,000.

Mrs. K. Curtis, two-st'y dwell., 192 North Wood St.; cost, $2,500.

R. B. Smith, three-st'y dwell., 13 Granger St.; cost, $4,000.

Zion Congregation, church, Washington Boulevard and Ogden Ave.; cost, $30,000; architects, Adler & Sullivan; builder, T. O'Shea.

A. E. Kent, three-st'y office building, 12 Sherman St.; cost, $21,000; architect, A. Smith.

S. Hallack, three-st'y flat, 2718 Wabash Ave.; cost, $6,000; architect, C. R. Hickock.

E. Johnson, three-st'y flats, 204 Sedgwick St.; cost, $7,000; architect, G. Otter.

M. Freistadler, three-st'y store and flats, 442 Twelfth St.; cost, $7,500.

J. Carmak, four-st'y store and flat, 116 Ewing St.; cost, $7,500; architect, J. M. Krolroec.

D. Kennedy, two-st'y flats, 156 Ohio St.; cost, $3,500; architect, M. Folz.

Wm. Rabe, two-st'y dwell., 186 Canalport Ave.; cost, $3,500; builder, F. Koeppe.

Mrs. L. Spafford, two-st'y warehouse, 156 West Monroe St.; cost, $6,000; architect, D. S. Pentecost; builder, G. O'Connell.

H. Koop, four-st'y store and flats, 962 Milwaukee Ave.; cost, $10,000; architects, Schaub & Berlin; builders, Eich & Otto.

E. Whlies, three-st'y flat, 139 Dekoven St.; cost, $5,000.

A. Zatizmann, three-st'y flats, 62 Whiting St.; cost, $5,000.

L. L. Dickman, two-st'y dwell., Idaho St.; cost, $4,000.

C. W. D. R. R. Co., barn, 138 to 146 Throop St.; cost, $5,000.

J. Kundinges, two-st'y store and dwell., 572 Twenty-eighth St; cost, $3,000.

M. Schultz, 3 four-st'y stores and flats, 722 to 724 North Robey St.; cost, $9,000; architect, H. Kley; builders, Rodgers & Koch.

F. Bock, two-st'y dwell., 742 North Hoyne Ave.: cost, $6,000; architect, H. Kley.

E. H. Haines, three-st'y dwell., 14 Astor Pl.; cost, $8,000; architects, Thomas & Rodgers.

Dr. Christie, two-st'y dwell., 873 Twenty-second St.; cost, $4,000.

J. H. Smith, three-st'y store and dwell., 376 Well St.; cost, $8,000.

Cincinnati.

HOTEL ALTERATIONS. — The Burnet House, cor. of Third and Vine Sts., is now undergoing extensive alterations and additions. The improvements embrace a new entrance, new interior marble stairway, dining-room elevators, and additional rooms. The work is in charge of Mr. Frank W. Handy, and will cost about $150,000.

The Gibson House is also being repaired and altered on the inside. A new wrought-iron and marble stairway has been built, and other improvements are being made, which will cost about $30,000; A. C. Nash, architect.

BUILDING PERMITS. — Jno. Shillito & Co., six-st'y brick building, Jackson St.; cost, $30,000.

J. Kamp, three-st'y brick building, Jackson St., bet. Twelfth and Canal Sts.; cost, $4,000.

Jno. Weser, three-st'y brick building, 128 McMicken St.; cost, $4,000.

P. M. J. Kauther, one-st'y frame building, 420 East Third St., cost, $3,000.

Frank M. Hicks, 3 two-st'y frame buildings, Chatham St.; cost, $2,500.

Joe Ocker, addition; cost, $2,500.

Max Burgheim, two-st'y brick building, Ohio Ave., e s; cost, $9,000.

Chas. Ulrich, two-st'y frame building, Euclid Ave., n Corry St.; cost, $2,800.

Hy Batch, double four-st'y brick building, Culvert St.; cost, $8,500.

Dr. Grover, four-st'y brick building, e s Main, near Court St.; cost, $5,000.

George E. Mason, two-st'y frame building, Beech St.; cost, $3,000.

F. Schwarb, two-st'y brick building, Wheeler St., bet. McMillan and Warner Sts.; cost, $7,000.

J. Klein, three-st'y brick building, McMicken Ave., bet. Locust and Main Sts.; cost, $3,000.

H. Stratemeyer, double two-and-one-half-st'y brick building, n s Kline St.; cost, $6,500.

Jno. Van, four-st'y brick building, 614 Vine St.; cost, $8,000.

Repairs and additions costing $8,400.

Total number of permits to date, 286.

Total cost to date, $984,000.

New York.

CATHOLIC CHURCH. — Workmen are laying the foundation for the new Catholic Church of St. Lawrence (Jesuit), at the cor. of Park Ave. and Eighty-fourth St.

HOUSES. — On the s s of Ninety-first St., w of Fourth Ave., 4 three-st'y and basement brown-stone houses, 19′ 6″ x 65′ each, are to be built for Messrs. Foster & Helson, from plans of Messrs. Schwarzmann & Buchmann.

On the s s of Seventy-first St., 425′ w of Western Boulevard, 6 three-st'y and basement houses, 16′ 8″ 52′ each, are to be built by Messrs. Fonner and Loutner, at a cost of $70,000, from plans of Messrs. J. C. Cady & Co.

STORES.—For Messrs. Robert and Ogden Goelet, three stores and a storage warehouse are to be built, on the cor. of Broadway and Thirty-eighth St., from plans of Mr. Jos. M. Dunn.

On the s s of One Hundred and Twenty-second St., between Second and Third Aves., a seven-st'y carriage-factory, brick and stone, 60′ x 90′, is to be built for James H. Butler, at a cost of $65,000, from plans of Mr. Chas. Baxter; and from designs of the same architect a two-st'y iron-railing factory, 35′ x 100′, is to be built on the n e cor. of One Hundred and Twentieth St. and Sylvan Ave., for Mr. D. C. Carleton.

BUILDING PERMITS. — *Seventy-second St.*, s s 113′ e First Ave., 8 five-st'y brown-stone front tenements, tin roofs; cost, each, $15,000; owner, architect and builder, James W. Ramsay, 225 West One Hundred and Twenty-third St.

One Hundred and Twenty-first St., s s, 75′ w Third Ave., two-st'y brick workshop, gravel roof; cost, $5,000; owner, David C. Carleton, 208 East One Hundred and Twenty-sixth St.; architect, Chas. Baxter; builder, A. Edwards.

Second Ave., s e cor. Sixty-fourth St., three-st'y brick store and loft, tin roof; cost, $9,000; lessees, Chesebro & Whitman, Seventy-ninth St. and Second Ave.; architect, R. Rosenstock.

Second Ave., n w cor. Eighty-seventh St., 4 five-st'y brick tenements and stores, tin roofs; cost, total, $65,000; owner, Francis S. Schnugg, 433 East Eighty-sixth St.; architect, J. Kastner.

East Eighty-seventh St., No. 242, five-st'y brick tenement, tin roof; cost, $20,000; owner and architect, same as last.

Sixty-eighth St., n s, 175′ e Second Ave., 4 three-st'y brown-stone front dwells., tin roofs; cost, each, $10,000; owner, F. Augustus Schermerhorn, 61 University Pl.; architect, H. J. Hardenbergh; builders, John Banta and John L. Hamilton.

West Sixtieth St., No. 509, five-st'y brick flat, tin roof; cost, $19,000; owner, Henry Riehl, 509 West Fifty-ninth St.; architect, R. Rosenstock; builder, not selected.

Tenth Ave., n w cor. One Hundred and Fourth St., 3 five-st'y brick tenements, tin roofs; cost, one $25,000; and two $18,000 each; owner, Franklin Thurston, 62 East One Hundred and Thirty-third St.; architect, Theo. E. Thompson.

One Hundred and Thirty-first St., n s, 225′ w Seventh Ave., 8 three-st'y brown-stone front dwells., tin roofs; cost, each, $9,000; owner, Wm. McReynolds, 125 West One Hundred and Thirty-second St.; architect and builder, A. McReynolds.

Audubon Ave., e s, 28′ n One Hundred and Sixty-sixth St., three-st'y frame dwell., tin roof; cost, $3,500; owner, Thos. Kearney, One Hundred and Sixty-fifth St. and Tenth Ave.; architect, Will A. O'Hea; builder, A. McNally.

One Hundred and Thirty-first St., n s, 50′ w Tenth Ave., two-st'y brick hospital and dispensary, tin roof; cost, $14,000; owner, Manhattan Dispensary, Daniel F. Tiemann, President, One Hundred and Fifty sixth St. and St. Nicholas Ave.; architect, W. Pray; builder, James Pettit.

One Hundred and Forty-fifth St., n s, 100′ e Tenth Ave., four-st'y and basement stone front dwell., tin roof; cost, $11,000; owner, Nathan Hobart, St. Nicholas Ave., cor. One Hundred and Fifty-fourth St.; architect, Theo. Clark; builders, W. G. Slade and A. C. Hoe & Co.

One Hundred and Forty-fifth St., s s, 150′ e Willis Ave., two-st'y brick and frame dwell., tin roof; cost, $3,800; owner, Stephen Miller, Willis Ave., near One Hundred and Forty-sixth St.; architect and builder, Wm. Kusche.

One Hundred and Forty-fifth St., s s, 165′ w Brook Ave., four-st'y frame tenement, tin roof; cost, $5,500; owners, Jas. and A. Ellis, 301 East One Hundred and Third St.; architect, John F. Wilson.

One Hundred and Forty-fourth St., s s, 424′ 7″ e Willis Ave., 3 two-st'y brick and frame dwells., tin roofs; cost, $3,300 each; owner, Maria E. Ackerman, 478 Willis Ave.; architect, Chas. Volz.

Ave. B, e s, 22′ 11″ e Fifteenth St., five-st'y brick tenement and store, tin roof; cost, $12,000; owner, Louis Schwoerer, 206 Ave. A; architect, J. Kastner.

Eldridge St., No. 131, five-st'y brick tenement, tin roof; cost, $19,000; owner, Solomon Jacobs, 1195 East Broadway; architect, Henry Herter.

Third St., No. 298, five-st'y brick tenement, tin roof; cost, $14,000; owner, John Rheinfrank, exr., 325 East Fourth St.; architect, Wm. Graul.

St. Nicholas Ave., w s, 50′ n One Hundred and Forty-sixth St., three-st'y and basement brick dwell., shingle and tin roof; cost, $11,000; owner, Wm. Thompson, 53 Leonard St.; architect, T. M. Clark.

Clinton Ave., No. 430, three-st'y brick dwell., tin roof; cost, $5,500; owner, Gustav Bork, 160 Orchard St.; architect, F. W. Klemt.

East One Hundred and Forty-second St., No. 619, three-st'y frame tenement, tin roof; cost, $6,500; owner, Anthony Mead, on premises; architect, A. Arctander.

East One Hundred and Fifty-fourth St., No. 581, four-st'y brick tenement, tin roof; cost, $14,000; owner, Frederick Vaupel, 581 East One Hundred and Fifty-fourth St.; architect, Jobst Hoffmann.

Morris Ave., No. 674, three-st'y frame tenement, tin roof; cost, $4,000; owner, John Ruddan, 674 Railroad Ave.; architect, C. Abbott French; builder, John J. Barney.

North Third Ave., No. 658, four-st'y brick tenement and store, tin roof; cost, $14,000; owner, John Giese, 660 Third Ave.; architect, Adam Munch.

St. Nicholas Ave., e s, 125′ n One Hundred and Forty-fifth St., 2 three-st'y brick dwells., tin roofs; cost, each, $8,000; owner, Wm. Thompson, 53 Leonard St.; architect, E. A. Sargent.

St. Nicholas Ave., e s, 608′ s One Hundred and Forty-fifth St., 2 three-st'y and attic brick dwells., shingle roofs; cost, each, $5,000; owner, Wm. Thompson, 53 Leonard St.; architect, T. M. Clark.

One Hundred and Forty-fourth St., s s, 290′ w Brook Ave., three-st'y frame carriage storehouse; cost, $6,000; owner, James S. Bryant, 715 East One Hundred and Forty-fourth St.

Concord Ave., w s, 150′ n One Hundred and Fifty-sixth St., 3 two-st'y frame dwells., tin roofs; cost, each, $2,500; owner, David Robitzek, Denman Pl., near Concord Ave.; architect, Adolph Pfeiffer.

ALTERATIONS.— *Eighth Ave., No.* 2306, four-st'y brick extension, tin roof; cost, $4,000; owner, Henry Heiner, 2382 Eighth Ave.; architect, F. C. Ridder, Jr.

Philadelphia.

BUILDING PERMITS. — *Lehigh Ave.*, w of Fifth St., 2 two-st'y dwells., 18′ x 32′; Judge & Snyder, contractors.

Birch St., above Salmon St., 2 two-st'y dwells., 20′ x 28′; Judge & Snyder, contractors.

Boynton St., bet. Wakefield and Miller Sts., 4 two-st'y store-houses, 15′ 8″ x 44′; John Rufa, owner.

Federal St., e of Broad St., 2 three-st'y dwells., 18′ x 60′; Jno. Gibson, contractor.

Eighteenth St., above Monument St., 8 two-st'y dwells., 16′ x 54′; D. C. Cleaver, owner.

Walnut St., above Thirty-eighth St., one-st'y stable, 22′ x 55′; R. Hamilton & Son, owners.

Fifth St., above Erie Ave., 4 two-st'y dwells., 12′ x 32′; Sirauk & Dietrich, owners.

Second St., bel. Tioga St., two-st'y dwell., 16′ x 45′; Sirauk & Dietrich, owners.

Cresson St., n of Dawson St., two-st'y dwell., 18′ x 32′; Frank Gillet, contractor.

Germantown Ave., No. 2423, addition and alteration, 18′ x 48′; I. H. Stewart, contractor.

Huntingdon St., e of Tulip St., two-st'y dwell., 17′ x 45′; I. R. Stewart, contractor.

Fourth St., s of Huntingdon St., 12 two-st'y dwells., 15′ x 47′; Eldredge & Stewart, owners.

Sixteenth St., n w cor. Wharton St., 10 two-st'y dwells., 16′ x 50′; Thomas Grennan, contractor.

Twenty-first St., bel. Berks St., 13 three-st'y dwells., 16′ x 53′; John L. Carre, owner.

St. Louis.

BUILDING PERMITS. — One hundred and twenty-two permits have been issued since our last report, thirty of which are for unimportant frame houses. Of the rest those worth $2,500 and over are as follows: —

Thos. A. Rise, two-st'y brick dwell.; cost, $5,000; Thos. J. Furlong, architect; Mulcahy & Milburn, contractors.

H. C. Hollmann, two-st'y brick dwell.; cost, $5,500 A. Beinke & Co., architects; W. Gahl & Co., contractors.

Mrs. C. Werner, 2 adjacent two-st'y brick dwells.; cost, $3,500; B. Weber & Co., contractor.

H. Wahlkawp, two-st'y brick store and dwell.; $6,000; H. Ellermann, contractor.

Mrs. M. Wright, two-st'y brick dwell.; cost, $7,000; J. W. Herthel, architect; G. Koch, contractor.

Times Printing Co., four-st'y brick printing establishment; cost, $4,000; I. Taylor, architect; Wickmire, contractor.

Dr. A. H. Meisenbach, three-st'y office and residence; cost, $5,900; Helm Bros., contractors.

A. Wieden, 2 adjacent two-st'y dwells.; cost, $10,000; A Wieden, contractor.

S. Cupples Woodenware Co., two-st'y brick stable, cost, $5,500; J. B. Lindsley & Bro., contractor.

T. Manning, 2 two-st'y brick dwells.; cost, $5,000.

S. Wissmann, two-st'y brick dwell.; cost, $3,000; O. P. Koenig, architect; sub-let.

Dr. O. Blank, two-st'y brick store and dwell.; cost, $3,470; F. W. Loffhagen, contractor.

Mrs. Mary Whittier, 4 adjacent two-st'y brick dwells.; cost, $16,000; A. Beinke & Co., architects; C. H. Poertner, contractor.

Francis T. Bryan, three-st'y store and dwell.; cost, $5,800; F. W. Loffhagen, contractor.

John J. Schwartz, two-st'y brick dwell.; cost, $3,475; A. Wagner, contractor.

Minnie Smith, two-st'y brick warehouse; cost, $3,500; Geo. Sterringer, contractor.

F. Hood, two-st'y double brick dwell.; cost, $3,000.

Henry Schrader, two-st'y double brick dwell.; cost, $4,000; Beckmuer & Rickman, contractors.

St. Louis Mutual House-Building Co., No. 3, two-st'y brick dwell.; cost, $4,500; E. Mortimer, architect; Remmers & Thompson, contractors.

Wm. Thuener, two-st'y double brick dwell.; cost, $4,400; Geo. S. Nuhaus, contractor.

H. Steuwe, two-st'y double brick dwell.; cost, $6,000; A. Beinke & Co., architects; H. Hellmann, contractor.

P. Feirney, two-st'y double brick dwell.; cost, $3,000; Wm. Gains, architect; John J. McMahon, contractor.

Mrs. Kate Cruikshank, 2 adjacent two-st'y brick dwells.; cost, $3,200; P. J. Smith, contractor.

Chas. F. Hotthaus, two-st'y brick dwell.; cost, $3,000; S. N. Quanti & Sons, contractors.

Chas. Kuhlmann, two-st'y double brick dwell.; cost, $4,350; F. & B. Hartmann, contractors.

John Schopp, two-st'y double brick tenement, cost, $6,000; Kircher & Co., architects; Aug. Fick, contractor.

Fred Hagedorn, 3 adjacent two-st'y brick dwells. cost, $8,000; A. Beinke & Co., architects; Louis Yaeger, contractor.

John Doyle, two-st'y brick dwell.; cost, $3,300; O'Malley Bros., contractors.

Nelson C. Chapman, 3 adjacent two-st'y brick dwells.; cost, $18,000; H. G. Isaacs, architect; Sam Marsden, contractor.

Union Depot Railway Co., one-st'y brick car stable; cost, $4,800; J. C. Brockmuir, contractor.

Miss Mary C. Boyle, three-st'y brick dwell.; cost, $4,000; A. Grable & Weber, architects; Grundewald & Wind, contractors.

Mrs. Cath. Meehan, 2 adjacent two-st'y brick stores and dwells.; cost, $4,500; Jos. Stauder, contractor.

S. Rauner, two-st'y double brick tenement, cost, $4,200; Jos. Stauder, contractor.

John E. Smith, two-st'y brick dwell.; cost, $3,700; O. Doerner, contractor.

C. F. Heidemann, two-st'y brick dwell.; cost, $5,000; Bothe & Rattemann, contractors.

Fred W. Pedmore, two-st'y double brick dwell.; cost, $2,600; Fred W. Pedmore, contractor.

G. Lessinghaus, three st'y brick distillery; cost, $14,000; Louis Streeker, contractor.

B. F. Hammett, 3 two-st'y brick dwells.; cost, $9,900; Kircher & Bro., architects; Chas. Gerhard, contractor.

St. Paul, Minn.

BUILDING PERMITS: — Two-st'y frame double dwell., w s of Pleasant Ave., bet. Walnut and Sherman Sts.; cost, $8,000; owner, Adam Ferick.

Three-st'y brick dwell., w s of Cedar St., bet. Tilton and Iglehart Sts.; cost, $15,000; owner, C. Friend.

Two-st'y brick veneer double dwell., e s of Canada St., bet. Ninth and Tenth Sts.; cost, $8,000; owner, Chas. Weide.

Three-st'y brick block of dwells., e s of Exchange St., bet. Sixth and Seventh Sts.; cost, $35,000; owner, Chas. A. Moore.

Four-st'y brick block stores and offices n s of Seventh St., bet. Cedar and Wabasha Sts.; cost, $30,000; owners, Rogers & Ring.

Two-st'y frame dwell., n s of Summit Ave., bet. Kent and Mackubins Sts.: cost, $8,000; owner, Jas. King.

Two-st'y frame dwell., n s of Dayton Ave., bet. St. Albans and Grotto Sts.; cost, $2,500; owner, W. E. Benton.

Two-st'y frame store and dwell., e s of Bedford St.; bet. Collins and Decatur Sts.; cost, $2,000; owner, H. Strong.

Two-st'y brick dwell., s s of Eleventh St., bet. Cedar and Minnesota Sts.; cost, $2,500; owner, John Schneider.

Three-st'y brick dwell., s s of Ninth St., bet. Franklin and Exchange Sts.; cost, $5,000; owner, Chas. F. Rapp.

Two-st'y frame dwell., s s of Holly Ave., bet. Western and Arundel Sts.; cost, $3,000; owner, James F. Reilly.

Two-st'y brick double store and dwell., w s of Rice, bet. Aurora and University Sts.; cost, $7,639; owner, C. Pottgiesei.

Two-st'y frame dwell., s s of Owasco St., bet. Avon and Victoria Sts ; cost, $2,000; owner, W. L. Merrill.

One-and-one-half-st'y frame dwell., e s of Burr St., bet. Case and Jenks Sts.; cost, $1,800; owner; Oloff Sundgaard.

Two-st'y frame dwell., s s of Owasco St., bet. Avon and Victoria Sts.; cost, $2,200; owner, C. P. Crossfield.

Two-st'y frame dwell., w s of Louis, bet. Iglehart and Marshall Sts.; cost, $3,304; owner, Henry Weber.

Two-st'y brick dwell., s e s of Stewart Ave., bet. Tuscarora St. and Mississippi River; cost, $10,400; owner, Wm. Baturtolzer.

Three-st'y brick stores, n s of West Fourth St., bet. Wabasha and St. Peter Sts.; cost, $12,000; owner, W. F. Davidson.

Two-st'y frame dwell., n s of Summit Ave., bet. Dale and St. Albans St.; cost, $8,000; owner, Lillie June Bartlett.

Two-st'y frame dwell., s s of Exchange St., bet. Walnut and Sherman Sts.; cost, $6,500; owner, H. M. Knot.

Two-st'y frame dwell., n s of Yale St., bet. St. Albans and Grotto Sts.; cost, $1,600; builder, S. T. Bennett.

Two-st'y frame dwell., n s of Yale St., bet. St. Albans and Grotto Sts.; cost, $1,600; builder, S. T. Bennett.

2 two-st'y frame dwells., s s of Dayton St., bet. Dale and St. Albans Sts.; cost, $1,800; builder, M. D. Miller.

Two-st'y frame dwell., n e cor. of Dale St. and Selby Ave: cost, $4,600; builder, S. T. Bennett.

Two-st'y frame dwell., e s of Western Ave., bet. Rande and Carroll Sts.; cost, $2,450; owner, J. C. Nelson.

Three-st'y frame dwell.; n s of East Tenth St., bet. Broadway and Pine Sts.; cost, $5,000; owner, Rossanna Lowry.

Two-st'y brick veneer barn, n s of Summit Ave., bet. Rice and St. Peter Sts.; cost, $2,450; owner, John Bell.

Two-st'y frame dwell., n w side of Oak St., bet. South and College Sts; cost, $4,500; owner, Dr. G. Stamm.

Two-st'y frame dwell., s s of Portland Ave., bet. Kent and Mackubin Sts.; cost, $3,500; owner, A. L. Mahler.

Three-st'y brick store and warehouse, e s of St Peter St., bet. Exchange and Tenth Sts.; cost, $7,500; owner, C. L. Horst.

Pump-house, n s of Wood St., bet. Eaton and Clinton Sts.; cost, $2,000; owner, H. Fernstrom.

3 two-st'y frame dwells., n s of Hancock Ave., bet. Prior and Wilder Sts.; cost, $2,000; owner, C. G. Kolff.

Two-st'y frame double dwell., s s of Goodrich St., bet. Western and Donoma Sts.; cost, $2,000; owner, Herman Barfooas.

Two-st'y frame dwell., w s of Josette St., bet. Nelson and Iglehart Sts.; cost, $3,600; owner, Lucius P. Ordway.

Two-st'y frame addition to dwell., s s of Laurel Ave., bet. Western and Arundel Sts.; cost, $2,400; owner, Dr. C. C. Lee.

General Notes.

ROCHESTER, N. Y., — Preparations are making for the immediate erection of a chemical laboratory to be attached to the Rochester University. It will cost $25,000. Prof. Lattimère will supervise the work.

TRENTON, N. J. — The State House Commission has decided to rebuild the burned portion of the Capitol.

WASHINGTON, D. C. — Thirteen hundred new buildings, worth about $4,000,000, were erected in Washington last year.

COMPETITION.

STATE-HOUSE.

[At Denver, Col.]

STATE OF COLORADO,
OFFICE OF THE BOARD OF CAPITOL MANAGERS,
DENVER, April 16, 1885.

In pursuance of an Act of the Fifth General Assembly of the State of Colorado, entitled "An Act to provide for the erection of a State Capitol Building at the City of Denver, and creating a Board of Management and Supervision, and appropriating funds therefor," plans and specifications for a Capitol building which, when erected, shall not cost to exceed one million of dollars, will be received by the Board of Managers **until 12 o'clock meridian, on the tenth day of July, 1885.**

The said Capitol building will be erected upon the summit of a plat of ground in the city of Denver, State of Colorado, known as Capitol Hill, with its principal façade to the west. The length of said building to be about 300′, and no plans will be considered for a building that are over 310′ in length. The breadth, height and general form must be in such proportion to its length as to constitute a symmetrical building, and must be constructed with special regard to strength and durability. The facing and ornamentation of the superstructure, including cornices, pediments and ballustrades, will be of stone.

Drawings must consist of foundation, sub-basement, basement, or first, second or third story plans, roof plans, and section of same, longitudinal section, transverse section, front, rear and end elevations, dome plan, giving section of same and material used, and method of construction from base to summit. Also giving diameter or area of base, style of architecture and extreme elevation.

The said Capitol building shall be built of stone, brick and iron, as far as practicable, and of material found in the State of Colorado, provided the same can be found in said State as cheaply as other materials of like quality in other localities. The entire building must be made as nearly as possible fireproof. The laws of acoustics must be carefully observed. The materials used in said building must be of the best quality. Provision must be made for steam-heating apparatus, and for the drainage, lighting and ventilation of said building in the most approved manner; and such a number of fireproof vaults as may be necessary for the preservation of the books and papers of the various departments of the State Government; also for elevators, water closets, etc.

All plans and scale drawings must be put on wooden frames or stretchers in order that they may be convenient for examination, and on a scale of one-eighth of an inch to one foot.

Compensation for plans and specifications will be as follows: For the best set of plans and specifications the sum of $1,500; for the second, $1,000; for the third, the sum of $800. All plans and specifications for which money is paid shall become the property of the State. The architect whose plans are adopted will be required to furnish the same in duplicate. For the detailed working plans and supervision, the amount shall not exceed two and one-half per cent of the cost of said building. No plan will be adopted until it shall be definitely ascertained that the entire cost of said Capitol building shall not exceed the sum of $1,000,000.

Said building must contain the following rooms, and such other rooms as convenience and symmetry require:

The sub-basement shall be eight feet between joists, and adapted to the use of the machinery, etc., of the building.

The basement story to be not less than fourteen feet between joists, and extend twelve feet above the surface of the surrounding ground. Said basement story to be divided into rooms to be used for the Adjutant-General's quarters, Historical Society, Horticultural Society, State Geologist and Mineral Cabinet, Commissioner and Inspector of Mines, and Storage Rooms.

First, or principal office story, to be not less than twenty feet between joists, and to contain, as near as practicable, the following rooms, to wit:

Three rooms for the Governor.
Same for Secretary of State.
Three rooms for Auditor of State.
Same for State Treasurer.
Two rooms for Insurance Department, two rooms for Attorney-General, three rooms for State Engineer, three rooms for Railroad Commissioner.
Four rooms for State Board of Land Commissioners, three rooms for Superintendent of Public Instruction.

Second, or double story, to be not less than forty-two feet between joists. The Senate Chamber, Hall of House of Representatives, Supreme Court Room and